

Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

For Quarter 4 2016, which spanned from October 1, 2016—December 31, 2016 there were 8,916 incidents reported to the Indiana Trauma Registry at the Indiana State Department of Health. There were 91 hospitals that reported data, of which 8 were level I or II trauma centers, 9 were level III trauma centers and 74 were non-trauma centers. There were 4 hospitals that either started to report again or were new to reporting during this quarter compared to the previous quarter, while 13 hospitals dropped off from reporting. A map of the state with the reporting hospitals can be found on page 17. Trauma centers represented 63% of the data. There were 3,239 incidents reported for October, 2,849 reported for November, and 2,828 incidents reported for December.

The content of this report has changed due to suggestions and additions requested by the Indiana State Trauma Care Committee at the April 21, 2017 meeting. Explanations of the changes requested and adapted from the ISTCC meeting can be found on page 18.

Some general reminders include that the blue columns represent an Indiana average, red columns represent level I and II trauma centers, green columns represent level III trauma centers and orange non-trauma centers. If a single percent is listed above a group of bars, the percent listed represents the average for Indiana. If a number is listed above a group of bars, it represents the count for Indiana. The category ‘All Transfers’ denotes the patient group where ED Disposition = Transferred to Another Hospital. **The category ‘Linked Transfers’ represents the patient group for whom the initial hospital and final hospital information could be linked.**

Definitions:

Direct Admit: Patient is admitted directly to the hospital and does not spend time in Emergency Department. The ED Length of Stay should reflect a direct admittance.

External Cause of Injury: ICD-10-CM codes that are used to describe the mechanism or external factor that caused the injury event.

Trauma Type: The classification of the force applied to the body. Trauma type categories include blunt, penetrating, thermal, and other trauma.

Injury Severity Score: An anatomical scoring system defined as the sum of the three highest squared maximum Abbreviated Injury Scale (AIS) values to account for multiple injuries in the six body regions.

Formulas:

Acronyms:

ED: Emergency Department	MVC: Motor Vehicle Collision
ICU: Intensive Care Unit	OR: Operating Room
ISS: Injury Severity Score	Ps: Probability of Survival
LOS: Length of Stay	Level I, II and III: Verified and In
NTC: Non-trauma Center	Process Trauma Centers
	CAHs: Critical Access Hospital

Calculations:

$Ps = 1/(1+e^{-b})$ where $b=b_0+b1(RTS) + b2(ISS) + b3(Age\ Index)$

Total GCS = Verbal GCS + Motor GCS + Eye GCS

$RTS = 0.94*GCS + 0.73*SBP + 0.29*RR$

$ISS = (AIS)^2 + (AIS)^2 + (AIS)^2$



Indiana State
Department of Health
Trauma and Injury Prevention

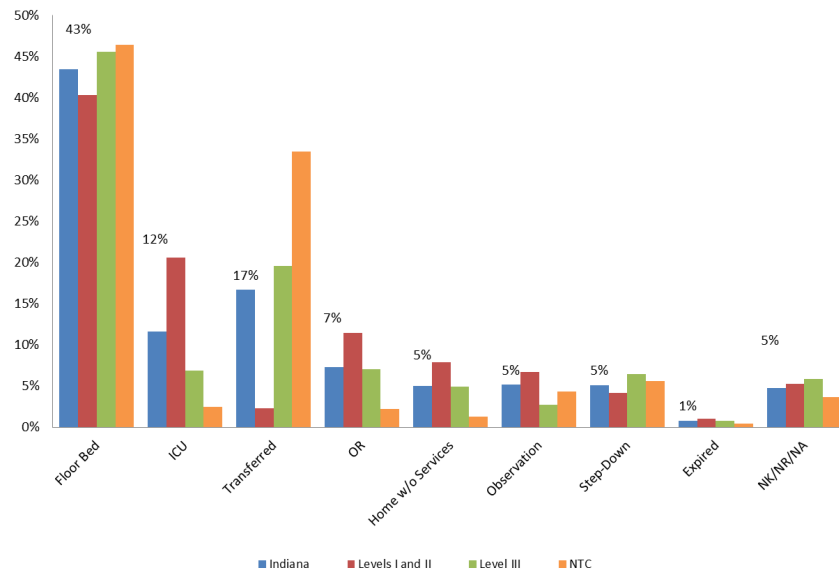
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

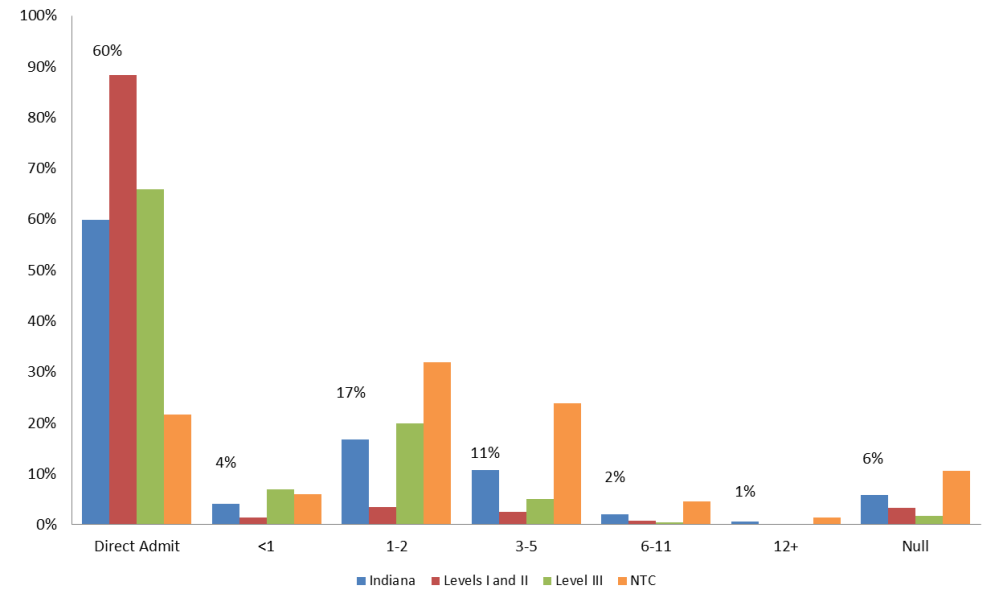
91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

ED Disposition by Percentage



ED Length of Stay (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

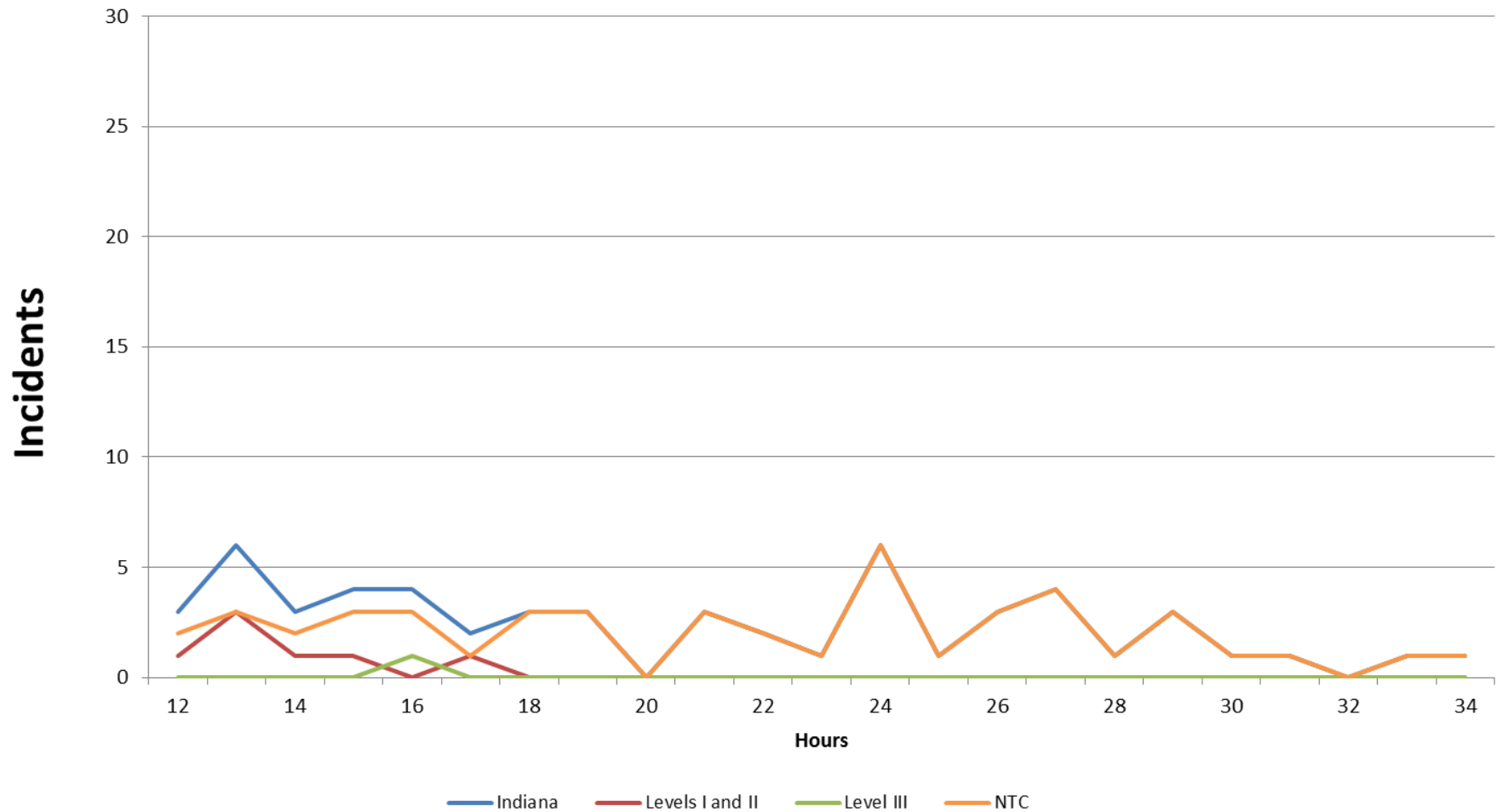
October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

ED Disposition for ED LOS >12 Hours



N=56

*No cases expired

Indiana Trauma Registry

Statewide Quarter 4 Data Report
October 1, 2016—December 31, 2016
8,916 Incidents

91 Total Hospitals Reporting
 Level I and II: **8 facilities** **46.4% of data**
 Level III: **9 facilities** **16.8% of data**
 (Non-Trauma) Hospitals: **74 facilities** **36.9% of data**

ED LOS > 12 Hours, N=56

Facilities	7 Level I and II 1 Level III 48 Non-trauma Centers	Region	17 North; 22 Central; 14 South; 3 Unknown
Average Distance from Scene to Facility	11.4 Miles	ISS	33 (1-8 cat); 13 (9-15 cat); 0 (16-24); 1 (25-44); 9 (No ISS)
Transport Type	35 Ambulance; 19 Private Vehicle; 2 Unknown	GCS Motor	3 (5 cat); 29 (6 cat); 24 (unknown)
Cause of Injury	2 Transport; 35 Falls; 5 Inanimate Mech. Forces; 1 Animate; 1 Overexertion; 1 Unspecified; 11 Not Identified	RTS—Systolic	4 (3-4)
Signs of Life	55 Yes; 1 Unknown	RTS—Resp. Scale	3 (3)
Age	56.9 Years (1-99 Years)	Resp. Assistance	1 Yes; 17 No; 38 Unknown
Gender	27 Female; 28 Male; 1 Unknown	ED LOS	20.6 (12-34)
Interfacility Transfer	7 Yes; 49 No	ED Disposition	21 Floor; 9 Home without services; 1 ICU; 2 Observation; 3 OR; 6 Step Down; 13 Transferred; 1 Unknown

-Region was created from injury zip code. Missing = no injury zip or injury zip from out of state.

-Numbers represent counts per category or mean with minimum and maximum in parentheses.

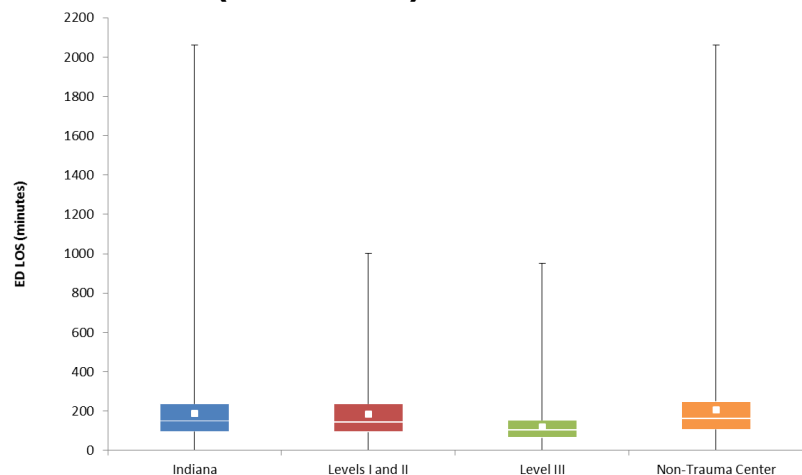
-No signs of life is defined as having none of the following: organized EKG activity, papillary responses, spontaneous respiratory attempts or movement, and unassisted blood pressure. This usually implies the patient was brought to the ED with CPR in progress (2015 Trauma Registry Data Dictionary, page 185).

Indiana Trauma Registry

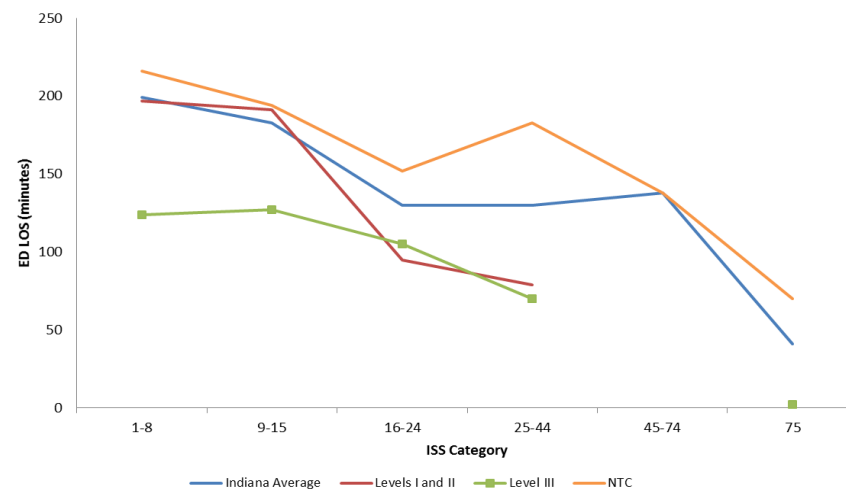
Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting
 Level I and II: 8 facilities 46.4% of data
 Level III: 9 facilities 16.8% of data
 (Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED LOS (Minutes) - All Patients



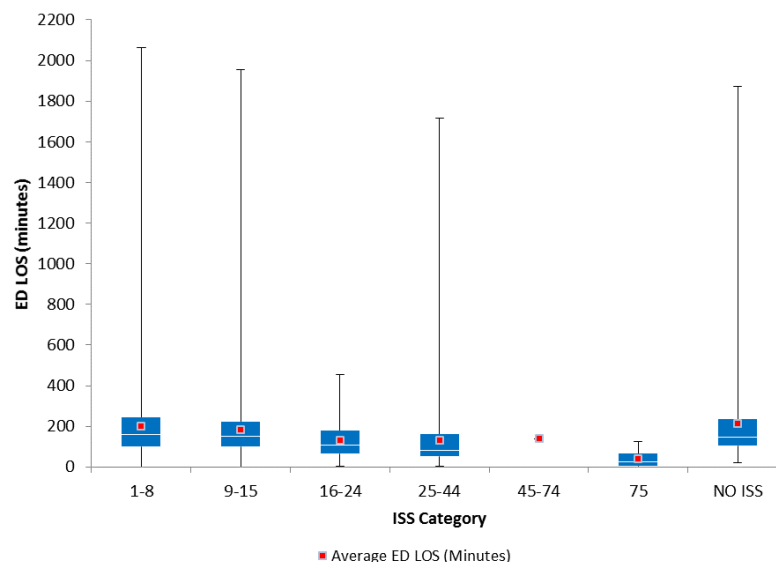
ED LOS (Minutes) by ISS



A table with all the values for ED LOS is found on page 52.

ED LOS (Minutes) by ISS

Note for EDLOS by ISS, there were 10 cases with ISS of 75; one was at a non-trauma center.



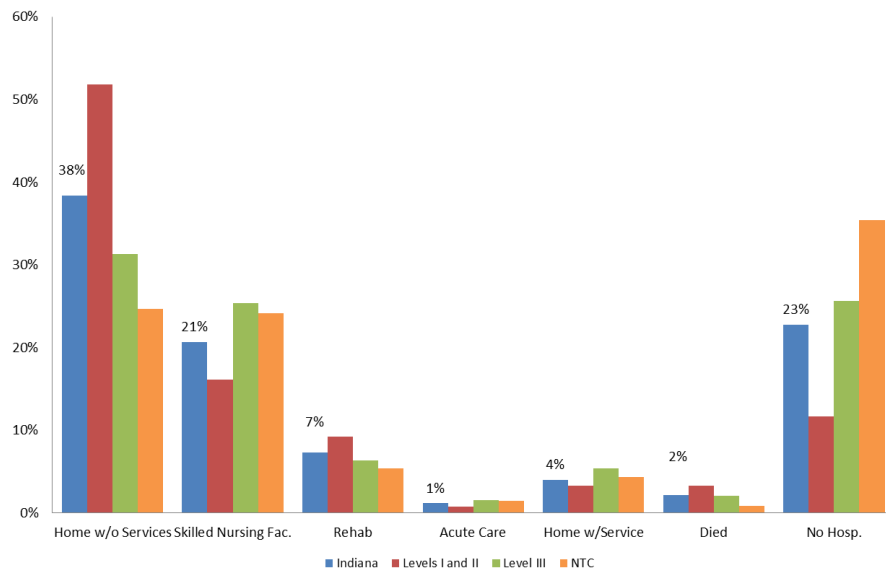
A table with values for ED LOS by ISS may be found on page 52

Indiana Trauma Registry

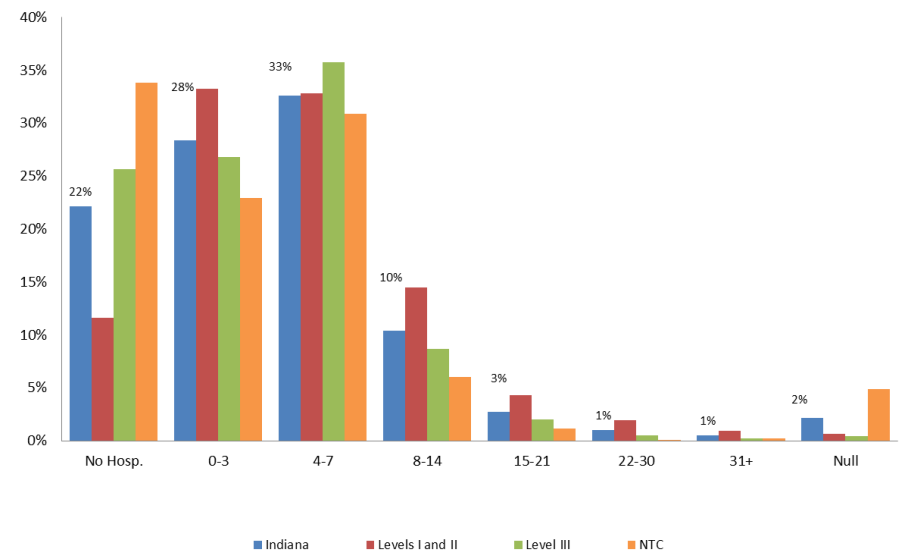
Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting			
Level I and II:	8 facilities	46.4% of data	
Level III:	9 facilities	16.8% of data	
(Non-Trauma) Hospitals:	74 facilities	36.9% of data	

Hospital Disposition



Hospital Length of Stay (days)



Hospital dispositions with <1% included: Another institution, Null, Psychiatric Hospital, Long-Term Care Hospital and Intermediate Care

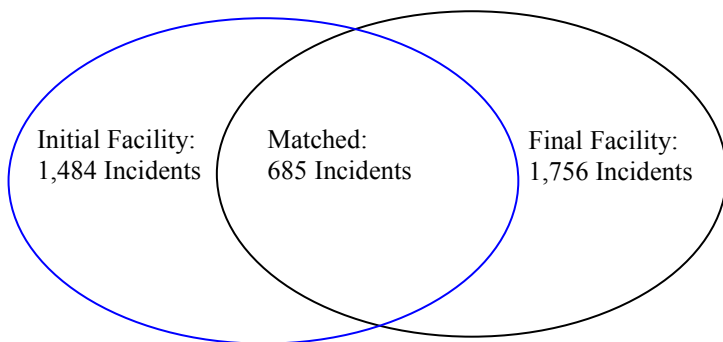
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

For Quarter 4 2016, of the 8,916 incidents reported to the Indiana Trauma Registry, 1,484 cases that had an ED Disposition of “Transferred to another acute care facility” at the initial facility or that had the Inter-Facility Transfer equal to “Yes” at the Trauma Center. Of those transferred, 685 cases were probabilistically matched. The linked cases make up 21% of the Q3 2016 data. All public health preparedness districts are represented. The diagram below illustrates the overlap between the transfers reported from the initial facility and from the final facility that can be matched.



The initial facility in which transfers come from may be considered Critical Access Hospitals (CAHs). All Indiana CAHs are considered Rural, and must meet additional requirements to have a CAH designation, such as having no more than 25 inpatient beds and being located in a rural area. Facilities that are highlighted indicate that these facilities reported data for Quarter 4 2016.

Within this transfer data section, the purple columns represent the transfer cases and the single percentages represent the percent for the transfer cases. For two demographic variables, patient age groupings and gender, the Indiana average is included to provide more insight to this transfer population.

Indiana Critical Access Hospitals (CAHs)

Adams Memorial Hospital	Perry County Memorial Hospital
Cameron Memorial Community Hospital Inc	Pulaski Memorial Hospital
Community Hospital of Bremen Inc	Putnam County Hospital
Decatur County Memorial Hospital	Rush Memorial Hospital
Dukes Memorial Hospital	Scott Memorial Hospital
Gibson General Hospital	St. Mary's Warrick Hospital
Greene County General Hospital	St. Vincent – Clay Hospital
Harrison County Hospital	St. Vincent – Dunn Hospital
IU Health Bedford Hospital	St. Vincent – Frankfort Hospital
IU Health Blackford Hospital	St. Vincent – Jennings Hospital
IU Health Paoli Hospital	St. Vincent – Mercy Hospital
IU Health Tipton Hospital	St. Vincent – Randolph Hospital
IU Health White Memorial Hospital	St. Vincent - Salem Hospital
Jasper County Hospital	St. Vincent – Williamsport Hospital
Jay County Hospital	Sullivan County Community Hospital
Margaret Mary Community Hospital Inc	Union Hospital Clinton
Parkview LaGrange Hospital	Woodlawn Hospital
Parkview Wabash Hospital	

Rural Hospitals

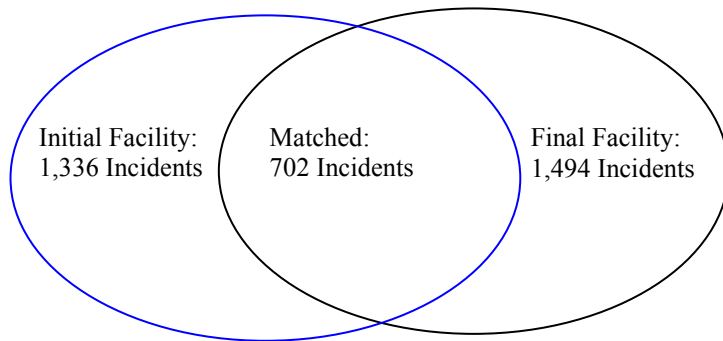
Columbus Regional Hospital	Kosciusko Community Hospital
Daviess Community Hospital	Major Hospital
Fayette Regional Health System	Marion General Hospital
Franciscan Health-Michigan City	Memorial Hospital (Logansport)
Franciscan Health-Crawfordsville	Memorial Hospital & Health Care Center (Jasper)
Good Samaritan Hospital	Parkview Noble Hospital
Henry Community Health	Reid Health
IU Health – LaPorte Hospital	St. Joseph's Regional Medical Center – Plymouth
IU Health – Starke Hospital	Schneck Medical Center
King's Daughters' Health	

Indiana Trauma Registry

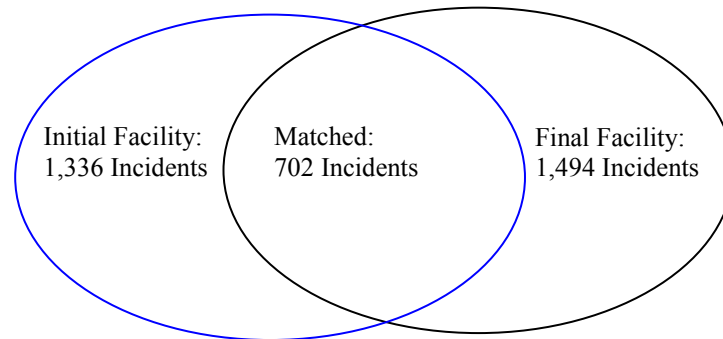
Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting		
Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

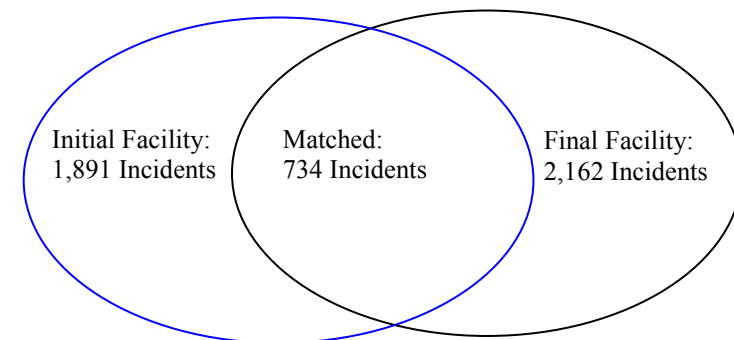
Historical Links



For Quarter 1, 2016, of the 8,077 incidents reported to the Indiana Trauma Registry, 1,336 cases that had an ED Disposition of “Transferred to another acute care facility” at the initial facility or that had the Inter-Facility Transfer equal to “Yes” at the Trauma Center. Of those transferred, 702 cases were probabilistically matched. The linked cases make up 25% of the Q1 2016 data. All public health preparedness districts are represented. The diagram below illustrates the overlap between the transfers reported from the initial facility and from the final facility that can be matched.



For Quarter 2, 2016, of the 9,188 incidents reported to the Indiana Trauma Registry, 1,676 cases that had an ED Disposition of “Transferred to another acute care facility” at the initial facility or that had the Inter-Facility Transfer equal to “Yes” at the Trauma Center. Of those transferred, 787 cases were probabilistically matched. The linked cases make up 23% of the Q2 2016 data. All public health preparedness districts are represented. The diagram below illustrates the overlap between the transfers reported from the initial facility and from the final facility that can be matched.



For Quarter 3, 2016, of the 8,916 incidents reported to the Indiana Trauma Registry, 1,891 cases that had an ED Disposition of “Transferred to another acute care facility” at the initial facility or that had the Inter-Facility Transfer equal to “Yes” at the Trauma Center. Of those transferred, 734 cases were probabilistically matched. The linked cases make up 18% of the Q3 2016 data. All public health preparedness districts are represented. The diagram below illustrates the overlap between the transfers reported from the initial facility and from the final facility that can be matched.

Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II: 8 facilities 46.4% of data

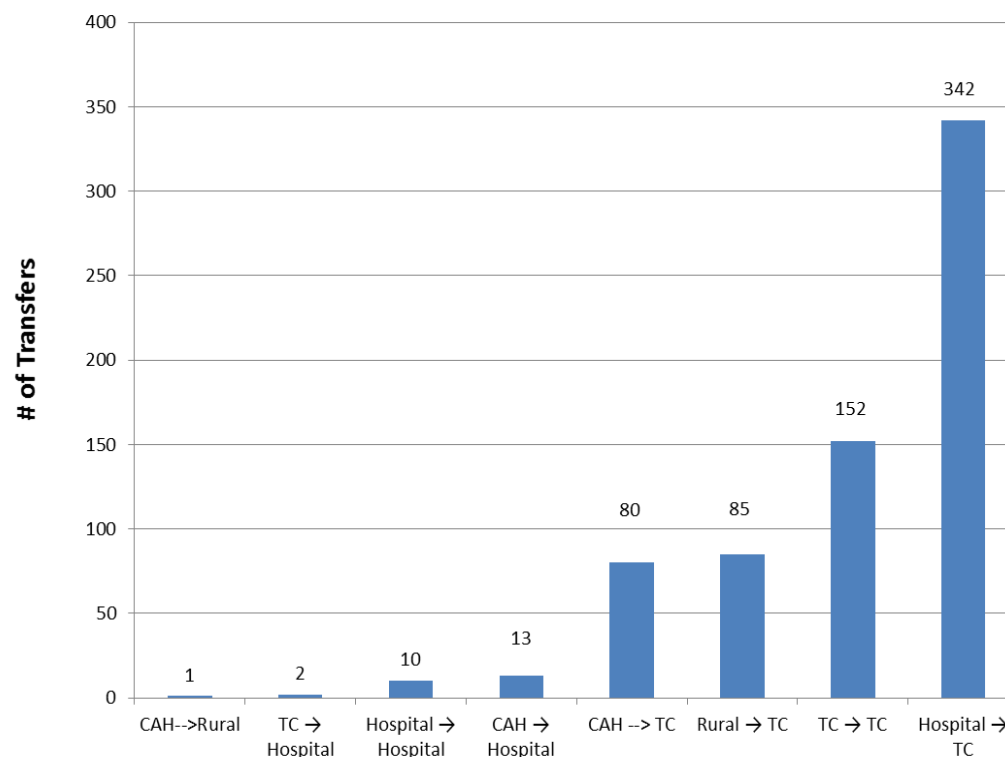
Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

Facility to Facility Transfers

For Transfer Patients:		
Initial Hospital Type	Final Hospital Type	Incident Count
Critical Access Hospital	Rural	1
Trauma Center	Hospital	2
Hospital	Hospital	10
Critical Access Hospital	Hospital	13
Critical Access Hospital	Trauma Center	80
Rural Hospital	Trauma Center	85
Trauma Center	Trauma Center	152
Hospital	Trauma Center	342

Facility Transfer Type



Rural = Rural Hospital; TC = ACS Verified or In Process Trauma Center;

CAH = Critical Access Hospital; Hospital = does not fall into above categories

Indiana Trauma Registry

Statewide Quarter 4 Data Report
October 1, 2016—December 31, 2016
8,916 Incidents

91 Total Hospitals Reporting
 Level I and II: 8 facilities 46.4% of data
 Level III: 9 facilities 16.8% of data
 (Non-Trauma) Hospitals: 74 facilities 36.9% of data

For Linked Transfer Patients:

For Transfer Patients:				
	All Transfer Patients	Critical*	Physiological Critical**	ISS Critical***
Number of Patients	685	257	211	82
EMS Notified to Scene	8.5 minutes	7.9 minutes	8.0 minutes	7.9 minutes
EMS Scene Arrival to Departure	16.9 minutes	16.4 minutes	16.3 minutes	15.8 minutes
EMS Scene Departure to Initial Hospital ED Arrival	20.8 minutes	17.8 minutes	17.2 minutes	18.1 minutes
Initial Hospital ED Arrival to Departure	2 hours 3.6 minutes	1 hour 54.6 minutes	1 hour 54.3 minutes	1 hour 38.9 minutes
Initial Hospital ED Departure to Final Hospital ED Arrival	2 hours 9.9 minutes	2 hours 9.6 minutes	2 hours 11 minutes	1 hour 18 minutes
TOTAL TIME	4 hours 59.7 minutes	4 hours 46.3 minutes	4 hours 46.8 minutes	3 hours 38.7 minutes

*Critical patient is defined as having a GCS ≤ 12 , OR Shock Index > 0.9 OR ISS > 15 at the initial hospital.

**Physiological Critical Transfer patient is defined as having a Shock Index > 0.9 OR GCS ≤ 12 at the initial hospital.

***ISS Critical Transfer patient is defined as having an ISS > 15 at the initial hospital

Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:

8 facilities

46.4% of data

Level III:

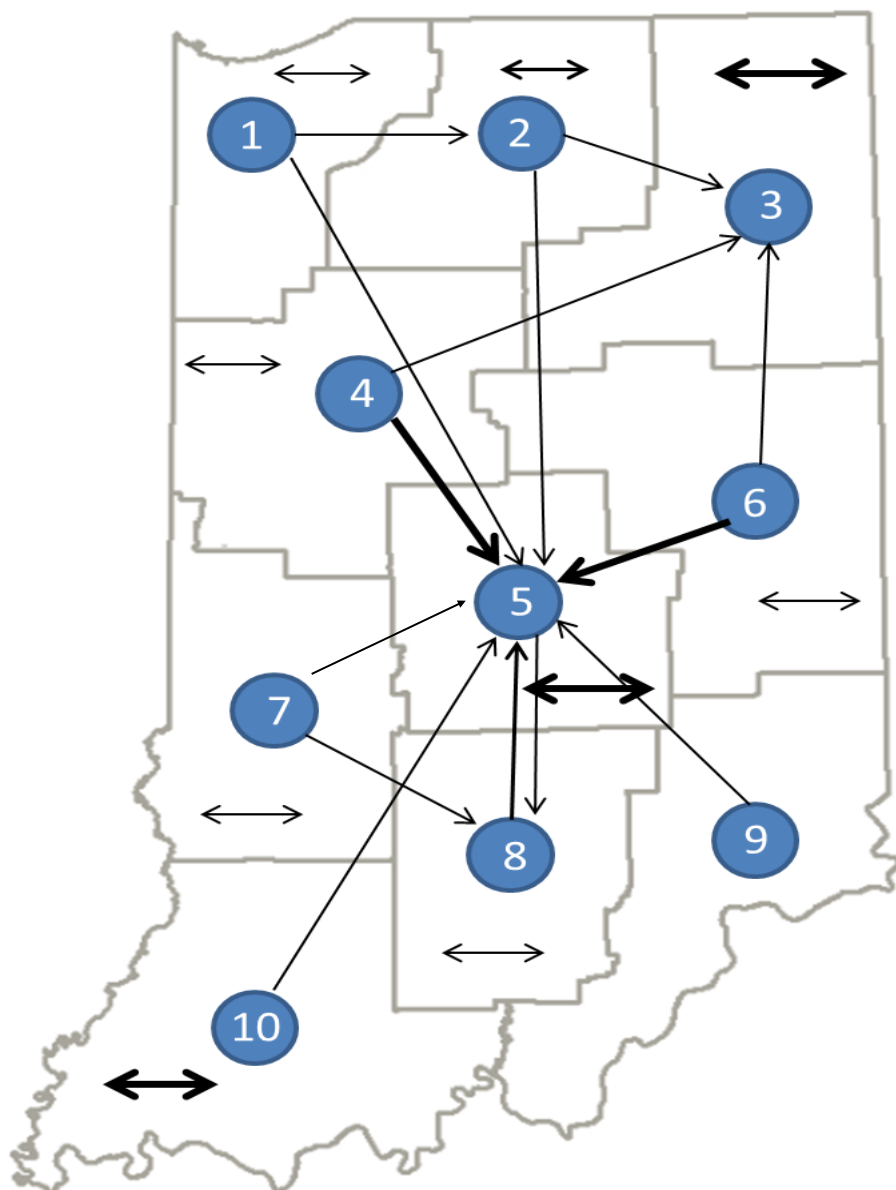
9 facilities

16.8% of data

(Non-Trauma) Hospitals:

74 facilities

36.9% of data



*The thickness of the line indicates the frequency of transfers out of or within the public health preparedness district. The circles represent transfers from a specific PHPD, not of a specific hospital or county.

For Transfer Patients:

Public Health Preparedness District Initial Hospital	Public Health Preparedness District Final Hospital	Incident Counts
1	2	18
1	5	9
2	2	3
2	5	6
3	3	163
3	5	2
4	3	3
4	4	8
4	5	50
4	7	1
5	5	144
5	6	1
5	8	2
6	3	5
6	5	104
6	6	2
7	5	40
7	7	11
7	8	5
8	5	37
8	8	7
9	5	1
10	5	9
10	10	54

Indiana Trauma Registry

Statewide Quarter 4 Data Report
October 1, 2016—December 31, 2016
8,916 Incidents

91 Total Hospitals Reporting
 Level I and II: 8 facilities 46.4% of data
 Level III: 9 facilities 16.8% of data
 (Non-Trauma) Hospitals: 74 facilities 36.9% of data

For Transfer Patients:

	All Transfer Patients	<i>Critical*</i>	<i>Physiological Critical**</i>	<i>ISS Critical***</i>
Number of Patients	685	257	211	82
Total Time	4 hours 59.7 minutes	4 hours 46.3 minutes	4 hours 46.8 minutes	3 hours 38.7 minutes
Total Mileage	48.8	57.8	59.3	54.3
Injury Scene to Initial Hospital Mileage***	7.7	7.1	6.8	7.3
Initial Facility to Final Facility Mileage	41.1	50.7	52.5	47

Estimated Average Distance (miles) by Region (region of final hospital):

Region	Injury Scene to Initial Facility Mileage [†]	Initial Facility to Final Facility Mileage	Total Mileage	Drive Count	Air Count
Indiana Average	7.7	41.1	48.8	605	80
North Region	7.2	27.3	34.5	180	12
Central Region	7.9	49.5	57.5	364	61
South Region	7.9	26.9	34.8	61	7

*Critical patient is defined as having a GCS ≤ 12 , OR Shock Index > 0.9 OR ISS > 15 at the initial hospital.

**Physiological Critical Transfer patient is defined as having a Shock Index > 0.9 OR GCS ≤ 12 at the initial hospital.

*** ISS Critical Transfer patient is defined as ISS > 15 at the initial hospital.

[†]Injury Scene to Initial Facility Mileage location estimated by zip code centroid

Statistics for Estimated Average Distance by Region calculated by Public Health Geographics, Epidemiology Resource Center, ISDH

Indiana Trauma Registry

Statewide Quarter 4 Data Report

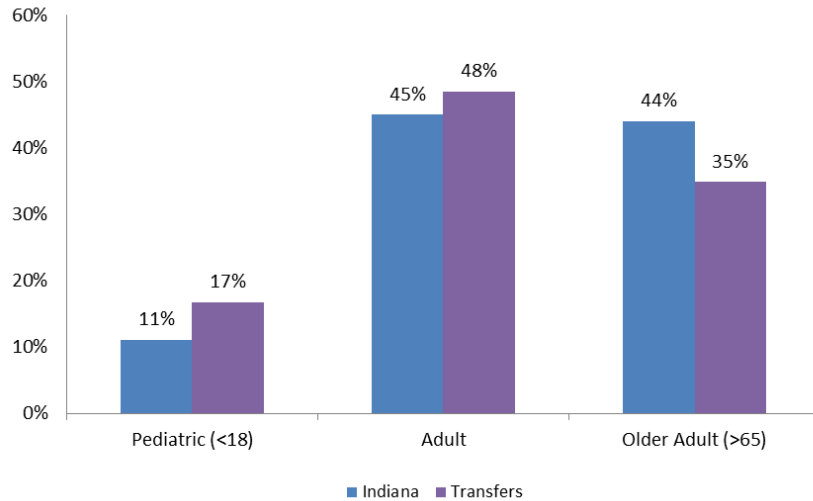
October 1, 2016—December 31, 2016

8,916 Incidents

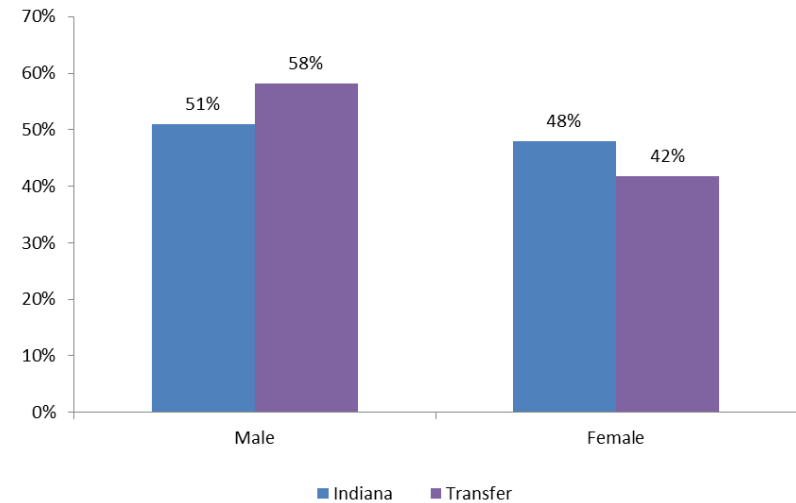
91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

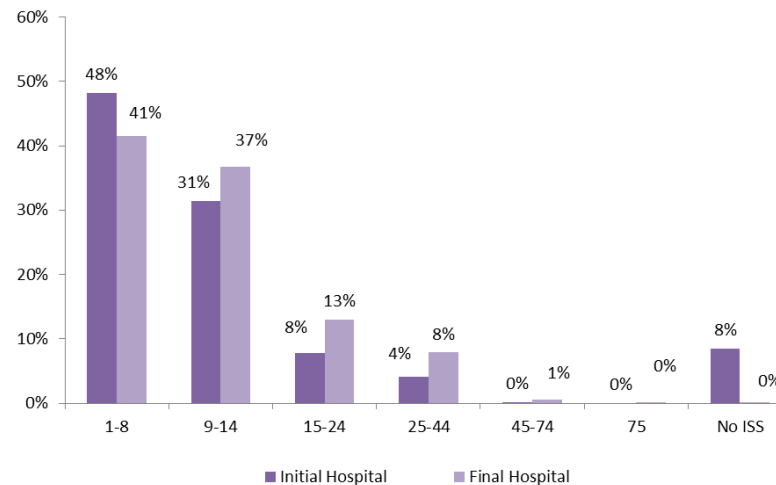
Patient Age Groupings



Patient Gender



Injury Severity Score (ISS)



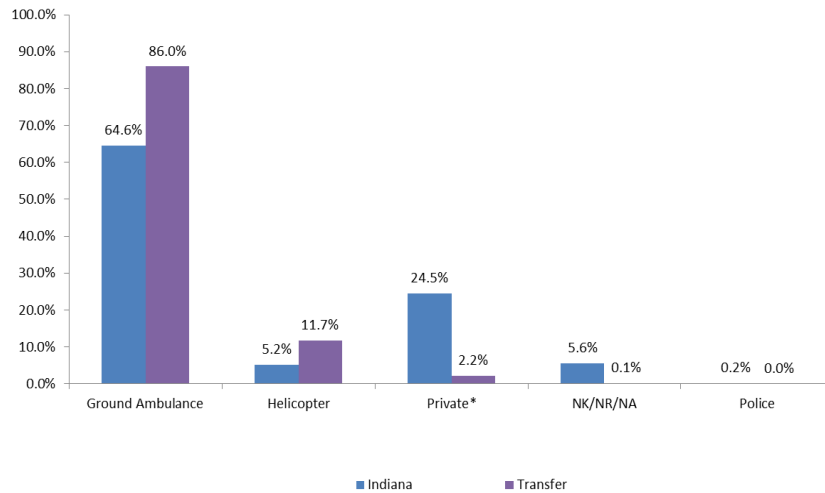
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

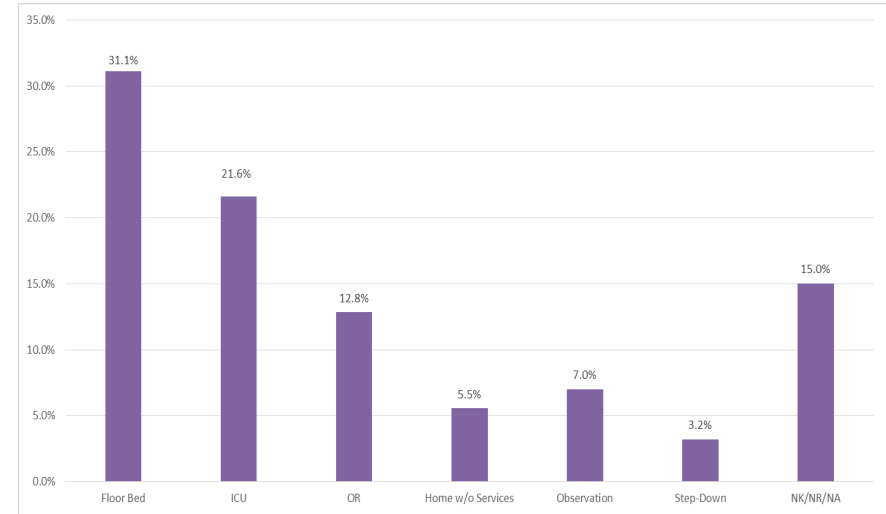
91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Transport Mode— Final Hospital

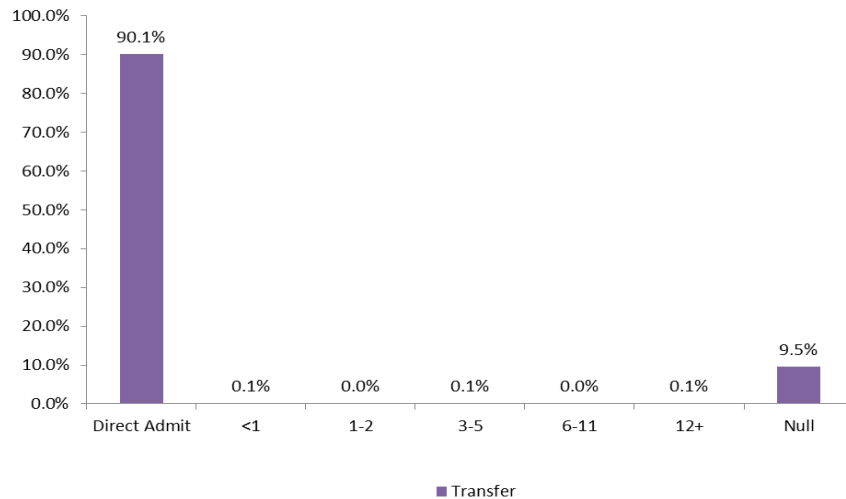


ED Disposition by Percentage- Final Hospital

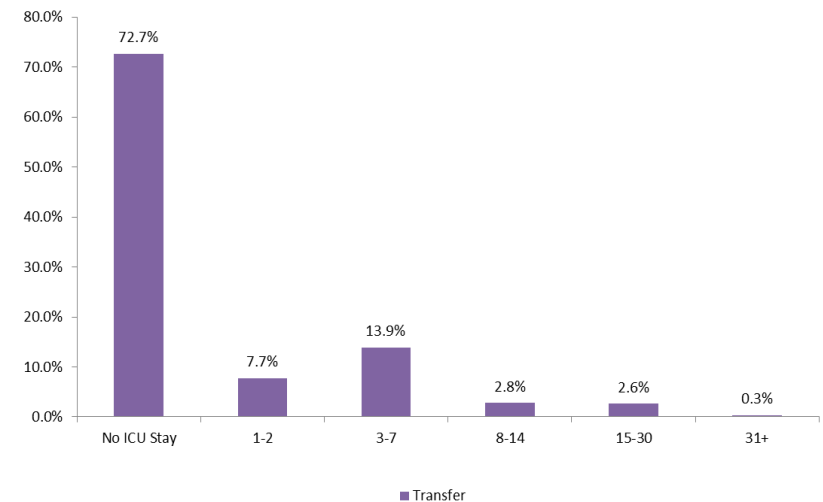


<1% : Transferred, Expired, AMA, Other

ED Length of Stay (hours)- Final Hospital



ICU Length of Stay (days)- Final Hospital



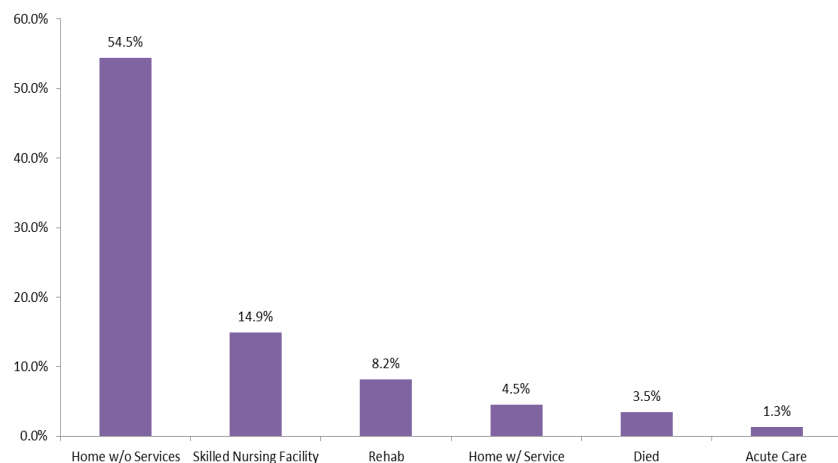
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting

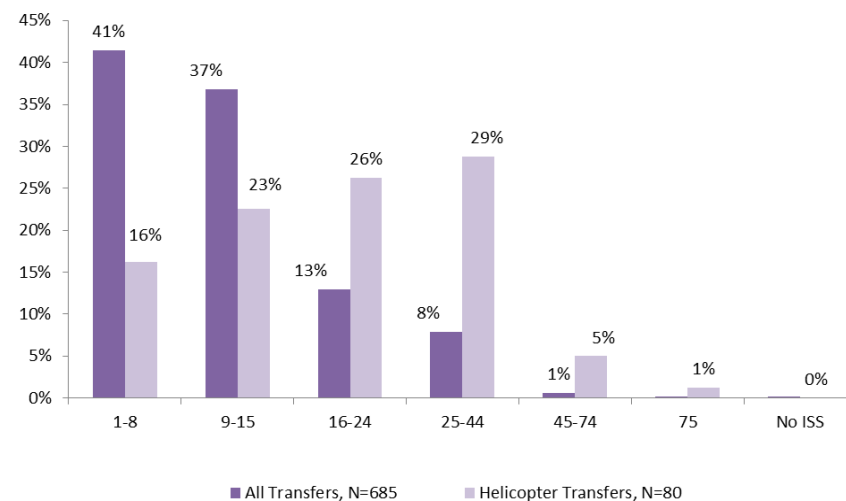
Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Discharge Disposition— Final Hospital

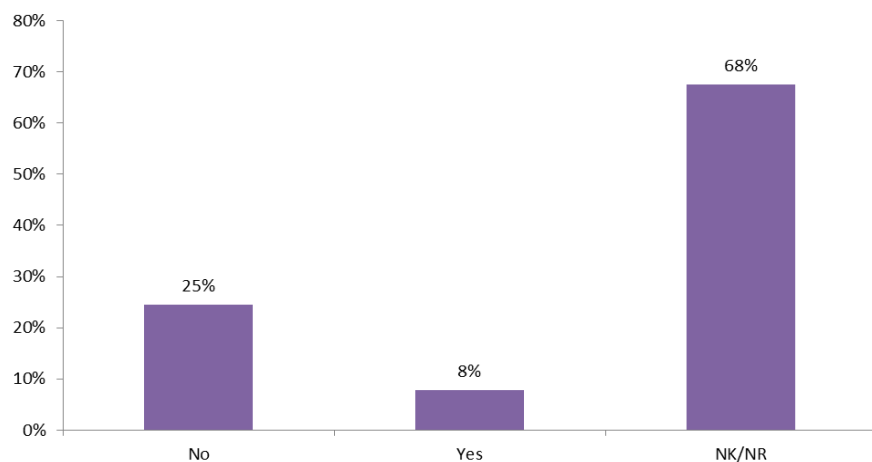


<1%: Acute care, AMA, another inst. Correctional, long-term care, hospice, psych hospital, no hospital stay

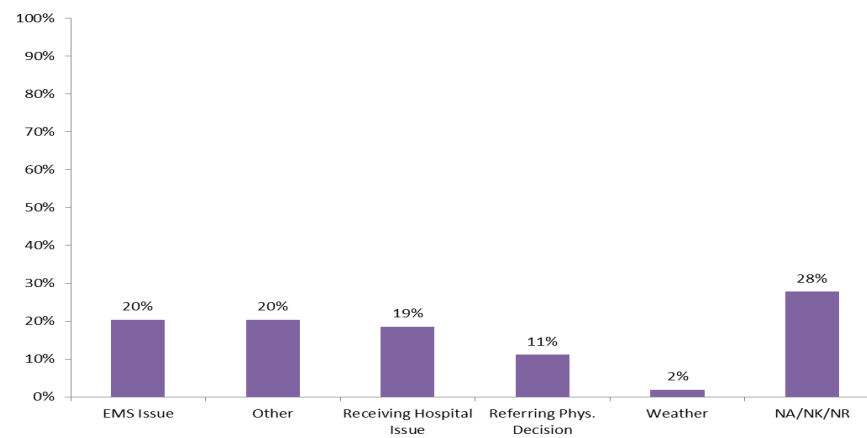
Helicopter Transfers by ISS— Final Hospital



Transfer Delay Indicated- Initial Hospital



Initial Facility Transfer Delay Reason



<1%: Receiving hospital radiology, missing

Indiana Trauma Registry

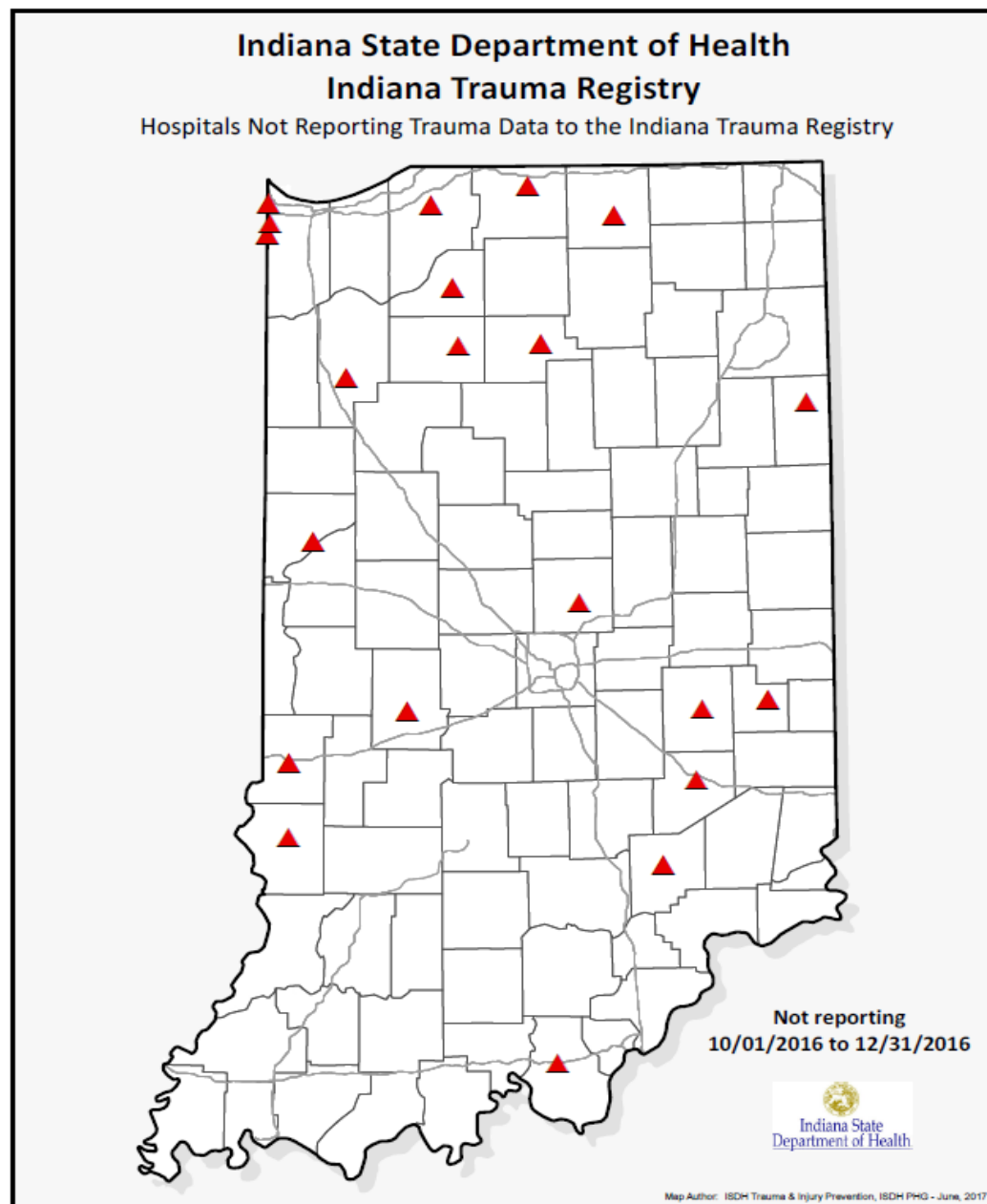
Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data



Hospital that did not report during Q4 2016:

- Adams Memorial Hospital
- Community Hospital of Anderson and Madison
- Decatur County Memorial Hospital
- Elkhart General Hospital
- Fayette Regional Health
- Franciscan Health Dyer
- Franciscan Health Hammond
- Franciscan Health Munster
- Franciscan Health Rensselaer
- Harrison County Hospital
- IU Health Goshen
- IU Health LaPorte
- IU Health Starke
- IU Health Tipton
- Memorial Hospital South Bend
- Pulaski Memorial Hospital
- Putnam County Hospital
- Riverview health
- Rush Memorial Hospital
- St. Vincent Evansville
- St. Vincent Frankfort Hospital
- St. Vincent Jennings
- Terre Haute Regional Hospital
- Woodlawn Hospital

Indiana State Department of Health Indiana Trauma Registry

Hospitals Reporting Trauma Data Quarter 4
October 1, 2016 - December 31, 2016

I II Level I and II Trauma Centers

Deaconess Hospital
Eskenazi Health
IU Health - Methodist Hospital
Lutheran Hospital of Indiana
Memorial Hospital of South Bend
Parkview Regional Medical Center
Riley Hospital for Children at IU Health
St Mary's Medical Center of Evansville
St Vincent Indianapolis Hospital & Health Services
Terre Haute Regional Hospital

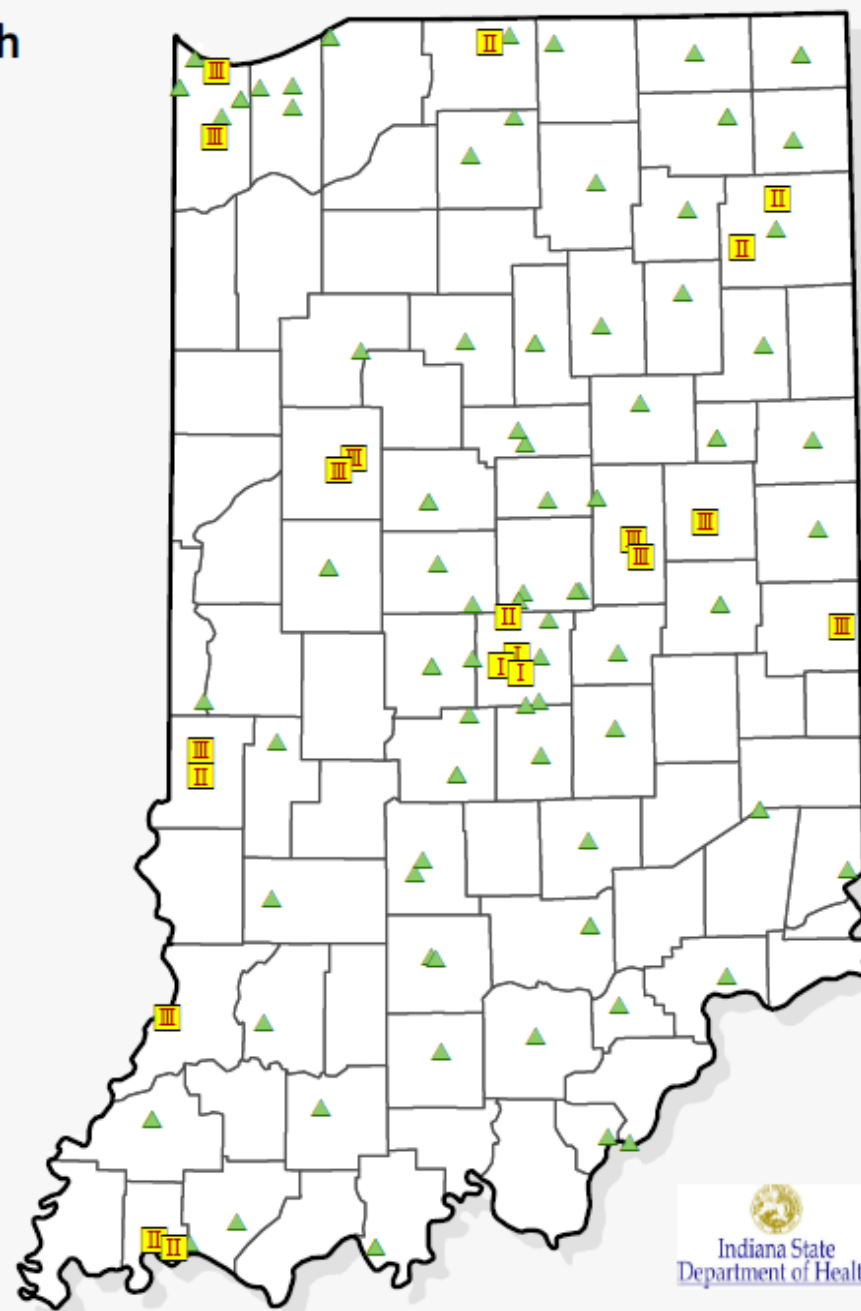
III Level III Trauma Centers

Community Hospital of Anderson & Madison Co.
Franciscan St Anthony Health - Crown Point
Franciscan St Elizabeth Health - Lafayette East
Good Samaritan Hospital
IU Health - Arnett Hospital
IU Health - Ball Memorial Hospital
Methodist Hospitals - Northlake Campus
Reid Hospital & Health Care Services
St Vincent Anderson
Union Hospital Terre Haute

▲ Non-Trauma Hospitals

81 Non-Trauma Hospitals

Hospital categories include Verified and "In the Process"
Trauma Centers as of September 30, 2016.



Map Author: ISDH Trauma & Injury Prevention, ISDH PHG - June, 2017

Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Requests and Changes to the Report from Trauma Care Committee members at the February 2017 ISTCC meeting:

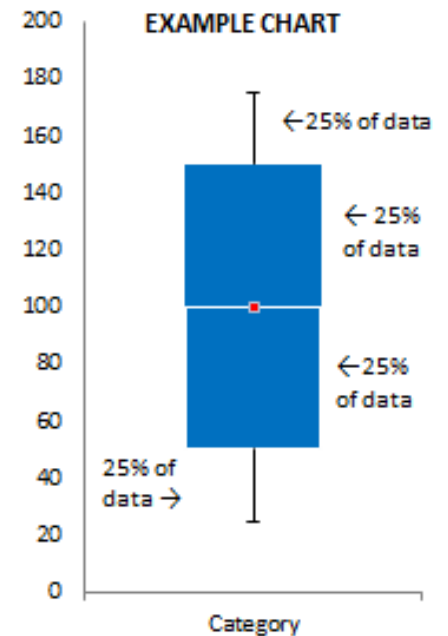
General Report:

- ED LOS is calculated using ED Acute Care Admission Date/Time and ED Acute Care Discharge Date/Time (Orders Written)
- Hospital LOS is calculated using Hospital Admission Date/Time and Hospital Discharge Date/Time (Orders Written)
- Trauma type and probability of survival will not be included in the statewide report until the CDC finalizes their guidelines on how to categorize those variables.
- Pages 45-51 have caterpillar plots with the ED LOS for critical transfer patients.
- Signs of Life: The two field values for this variable are: 1) Arrived with no signs of life, 2) Arrived with signs of life. A patient with no signs of life is defined as having none of the following: organized EKG activity, pupillary responses, spontaneous respiratory attempts or movement, and unassisted blood pressure. This usually implies the patient was brought to the ED with CPR in progress.

Example Bar and Whisker Plot:

-Bar and whisker plots were requested at the November 2013 ISTCC meeting in order to show more than just an average ED LOS and ED LOS by ISS. The bar and whisker plots represent the four quartiles of data, as illustrated on the example graph to the right. The blue boxes each contain 25% of the values and the error bars each represent where 25% of the values fell. The median is represented in the middle of the two blue boxes with the white line. The red dot in the center indicates the average for that category. The cap on the error bars indicates the minimum and maximum of each category and all the values fall within the two caps.

-For the ED LOS bar and whisker plots to the right, the average is represented by the white dot and the color boxes reflect the hospital type. The ED LOS by ISS plots on the next page follow the same layout and the red dots indicate the average for each of the ISS categories.



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Supplemental Report

The Supplemental Report (pages 19-55) contains demographic information, data that stays nearly constant from quarter to quarter, and reference tables and maps.

Definitions:

Emergency Department Length of Stay (ED LOS): The time from ED Admission to ED Discharge (Physical Exit). This changed to time from ED Admission to ED Discharge (Orders Written) beginning with Quarter 3 2016 data (July 1, 2016—September 30, 2016). There is a 120 minute performance improvement filter that is tracked for various hospital groups.

Direct Admit: Patient is admitted directly to the hospital and does not spend time in Emergency Department. The ED Length of Stay should reflect a direct admittance.

External Cause of Injury: ICD-10-CM codes that are used to describe the mechanism or external factor that caused the injury event.

Trauma Type: The classification of the force applied to the body. Trauma type categories include blunt, penetrating, thermal, and other trauma.

Injury Severity Score: An anatomical scoring system defined as the sum of the three highest squared maximum Abbreviated Injury Scale (AIS) values to account for multiple injuries in the six body regions.

Signs of Life: The two field values for this variable are: 1) Arrived with no signs of life, 2) Arrived with signs of life. A patient with no signs of life is defined as having none of the following: organized EKG activity, pupillary responses, spontaneous respiratory attempts or movement, and unassisted blood pressure. This usually implies the patient was brought to the ED with CPR in progress.

Acronyms:

E-code: External Cause of Injury	MVC: Motor Vehicle Collision
ED: Emergency Department	OR: Operating Room
ICU: Intensive Care Unit	Ps: Probability of Survival
ISS: Injury Severity Score	CAHs: Critical Access Hospital
LOS: Length of Stay	

Calculations:

$Ps = 1/(1+e^{-b})$ where $b=b_0+b1(RTS) + b2(ISS) + b3(Age\ Index)$

Total GCS = Verbal GCS + Motor GCS + Eye GCS

$RTS = 0.94*GCS + 0.73*SBP + 0.29*RR$

$ISS = (AIS)^2 + (AIS)^2 + (AIS)^2$



Indiana State
Department of Health
Trauma and Injury Prevention

Indiana Trauma Registry

Statewide Quarter 4 Data Report

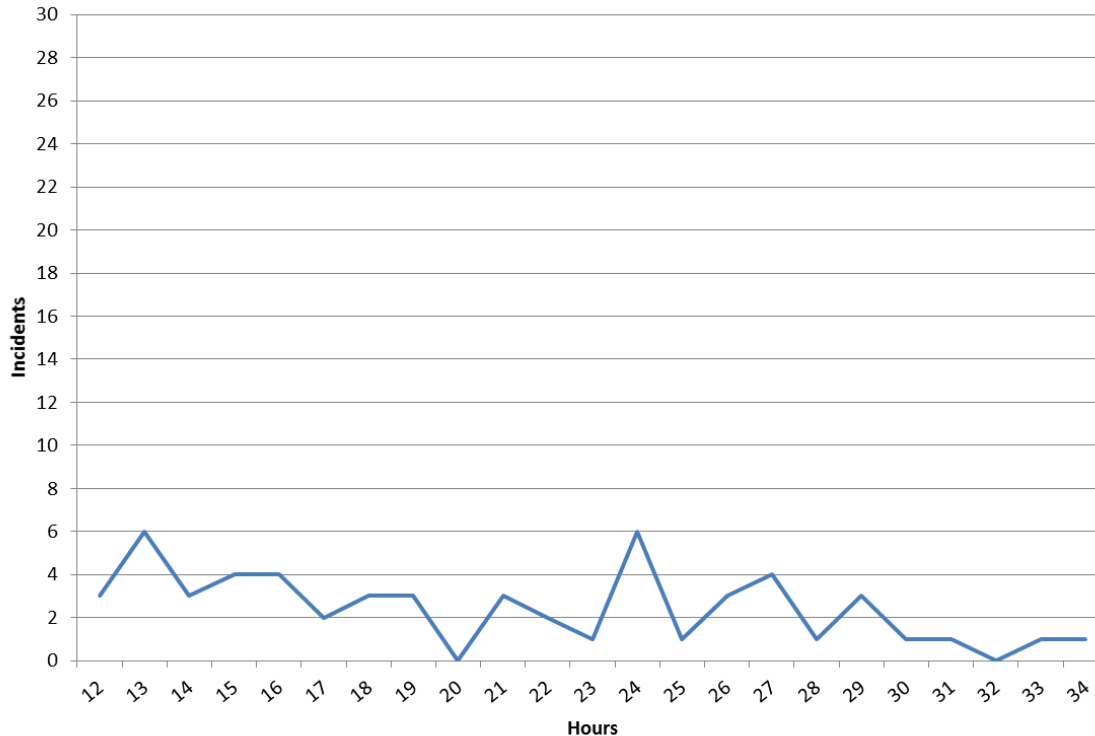
October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

ED LOS ≥ 12 Hours



N=56

ED Length of Stay ≥ 12 Hours

Hour	Count	Hour	Count
12th	3	24th	6
13th	6	25th	1
14th	3	26th	3
15th	4	27th	4
16th	4	28th	1
17th	2	29th	3
18th	3	30th	1
19th	3	31st	1
20th	0	32nd	0
21st	3	33rd	1
22nd	2	34th	1
23rd	1		

Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

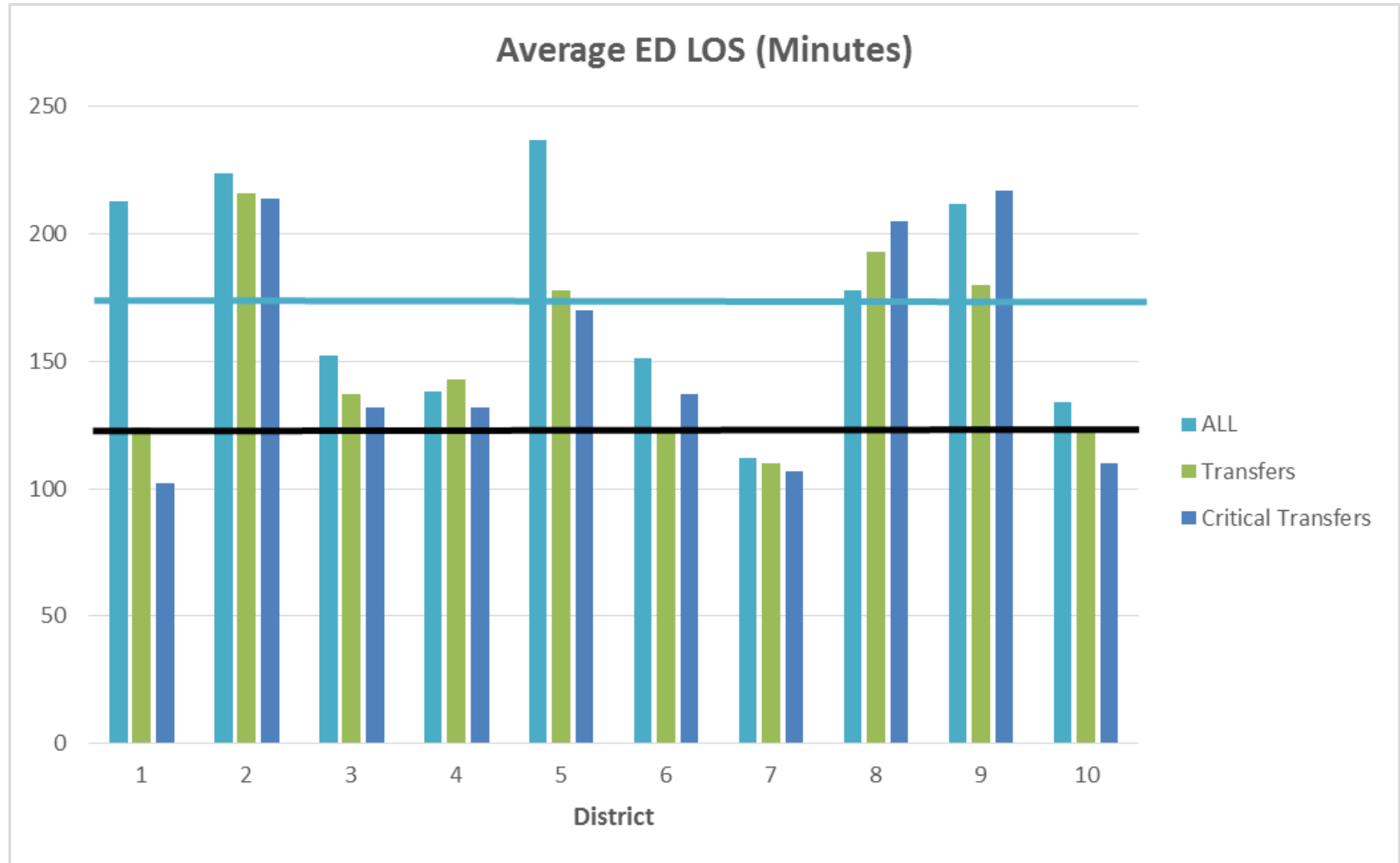
8,916 Incidents

91 Total Hospitals Reporting

Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data



*Black line represents the 120 minute performance improvement filter

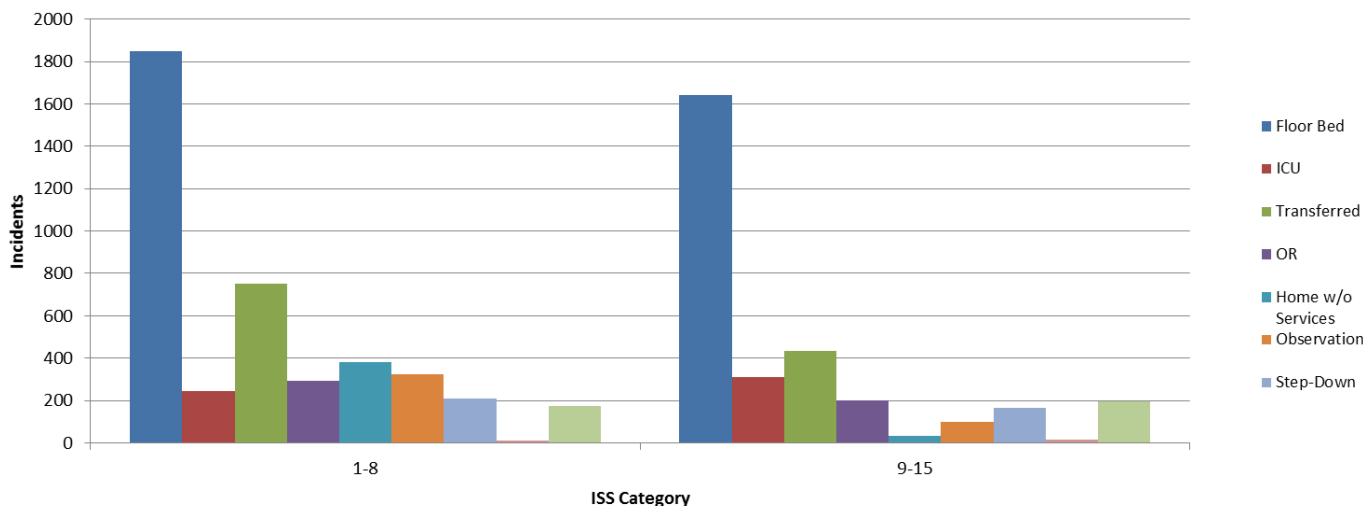
**Blue line represents the state average

Indiana Trauma Registry

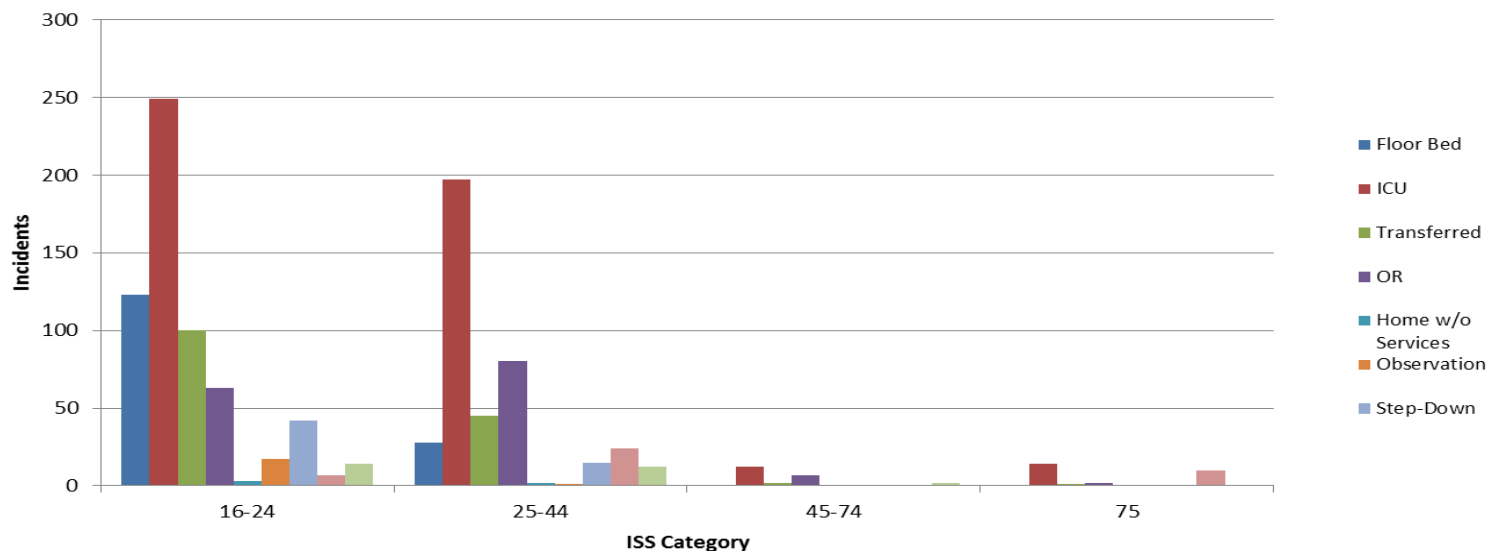
Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting
Level I and II: 8 facilities 46.4% of data
Level III: 9 facilities 16.8% of data
(Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Disposition by ISS 1-15



ED Disposition by ISS 16-75



ED Disposition <1%: Expired, AMA; Home with services; Other (Jail, Mental Institution, etc.). Please note the difference in axis scale between the top and bottom graphs.

*A table with values for ED Disposition by ISS is found on page 54.

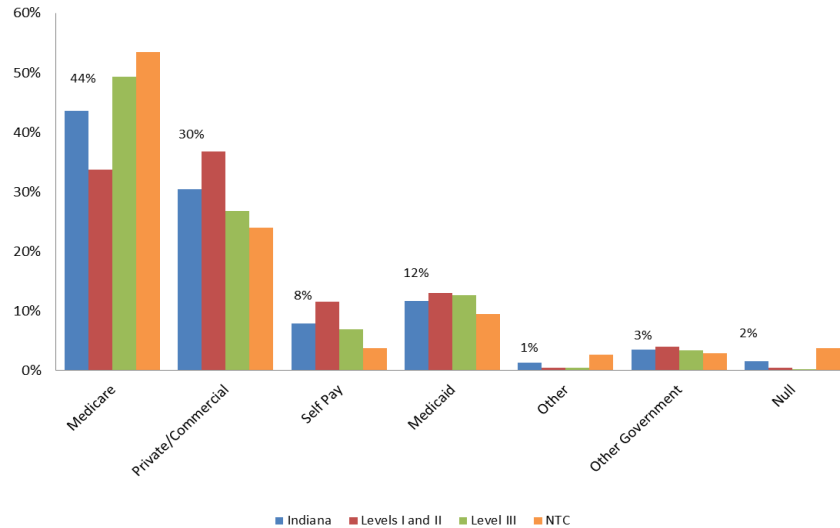
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

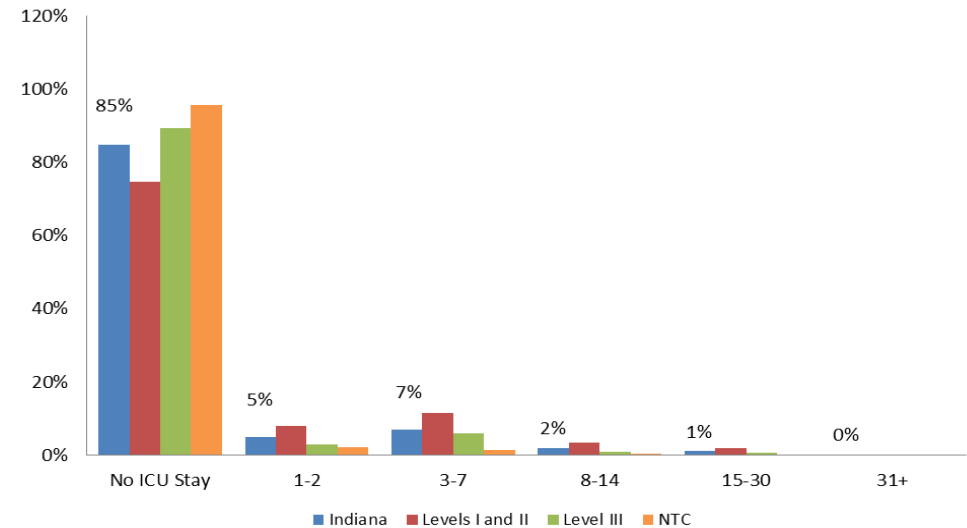
91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Primary Payer Mix



ICU Length of Stay (Days)



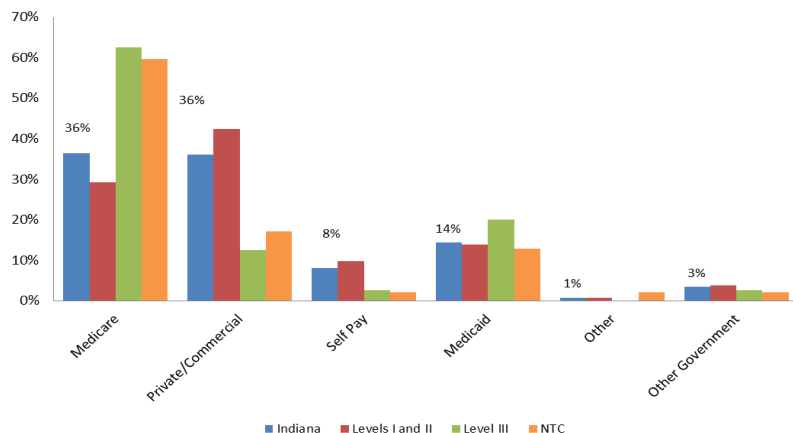
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

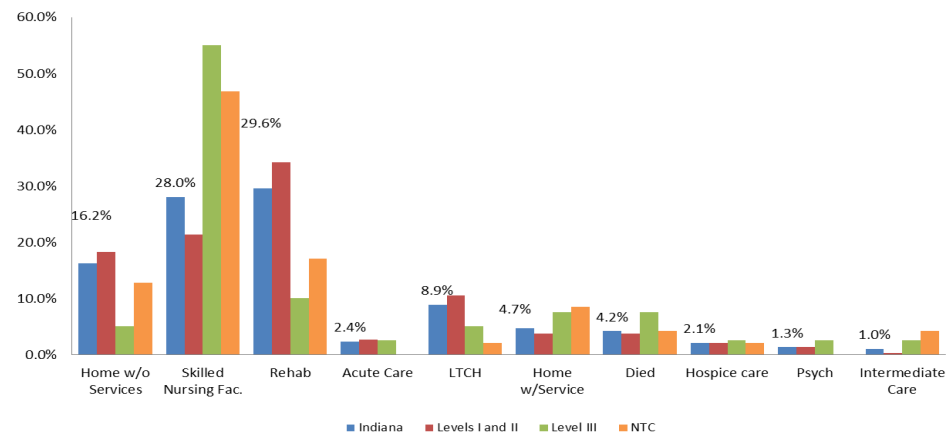
91 Total Hospitals Reporting			
Level I and II:	8 facilities	46.4% of data	
Level III:	9 facilities	16.8% of data	
(Non-Trauma) Hospitals:	74 facilities	36.9% of data	

Hospital Length of Stay > 15 days, N=382

Primary Payer Mix

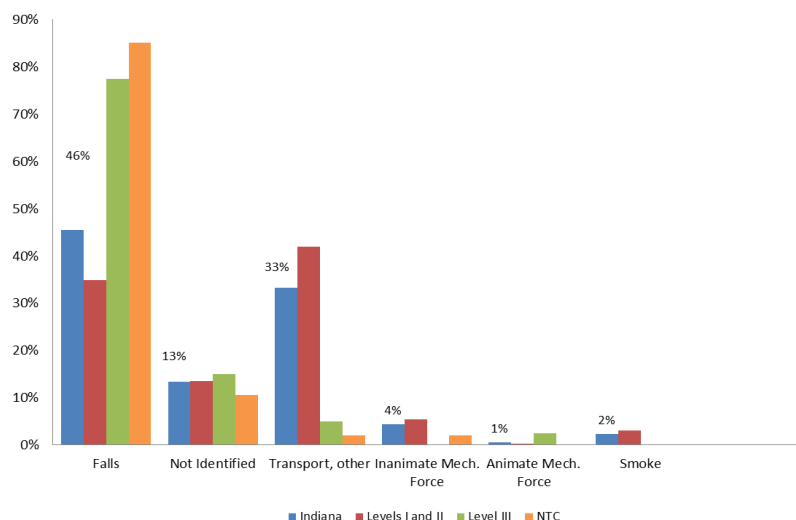


Hospital Disposition



Another Institution includes any other medical facility not defined in the other categories.

Cause of Injury



Cause of Injury is based on ICD-10-CM codes as of January 1, 2016. The categories for this variable include:

- Transport
- Falls
- Inanimate Mechanical Forces
- Animate Mechanical Forces
- Drowning
- Breathing
- Electricity/Radiation
- Smoke
- Heat
- Venom
- Forces of Nature
- Overexertion and Travel
- Unspecified
- Poisoning
- Not Identified

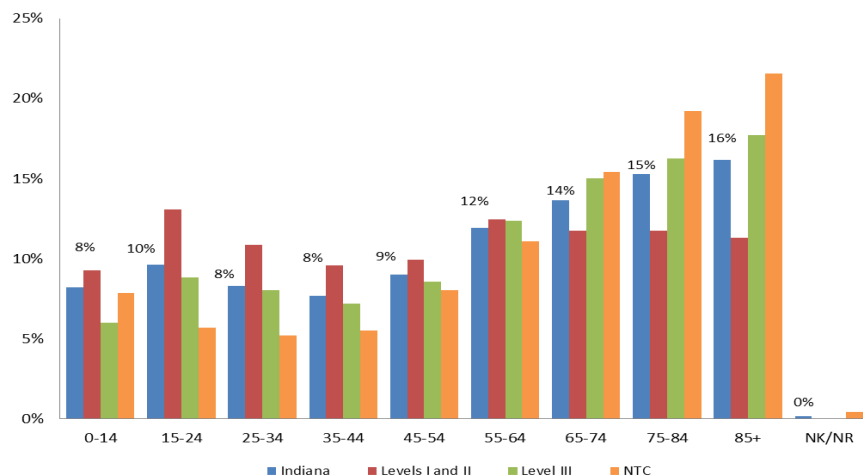
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting

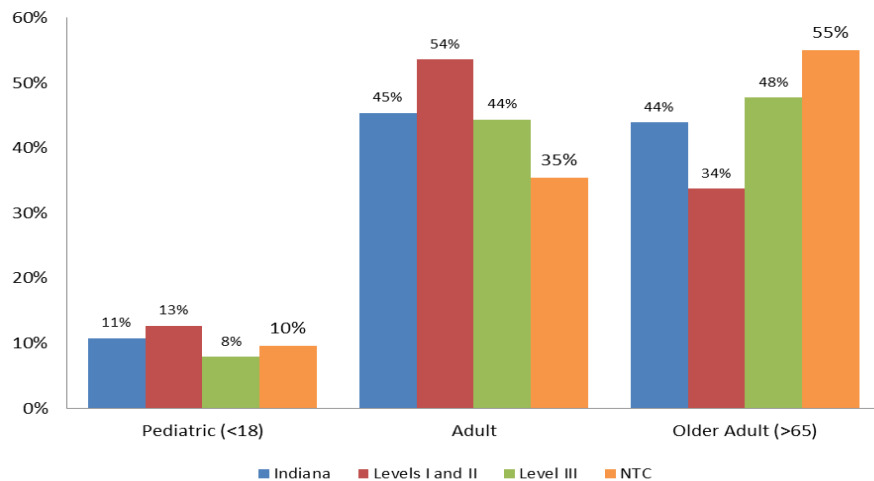
Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Patient Age (Years)



There were 15 unknown ages.

Patient Age Groupings



Age Group	Indiana	Level I and II	Level III	NTC
0-14	732	383	90	259
15-24	860	541	132	187
25-34	740	449	120	171
35-44	686	397	108	181
45-54	802	410	128	264
55-64	1063	514	185	364
65-74	1217	485	225	507
75-84	1361	486	243	632
85+	1440	467	265	708
NK/NR	15	1	0	14
Total	8916	4133	1496	3287

Age Group	Indiana	Level I and II	Level III	NTC
Pediatric (<18)	957	525	118	314
Adult	4037	2214	664	1159
Older Adult (>65)	3907	1393	714	1800
Total	8901	4132	1496	3273

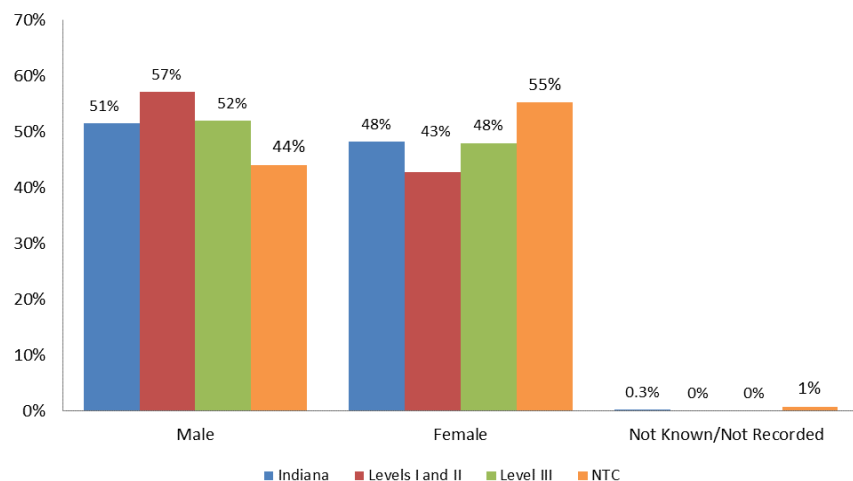
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting

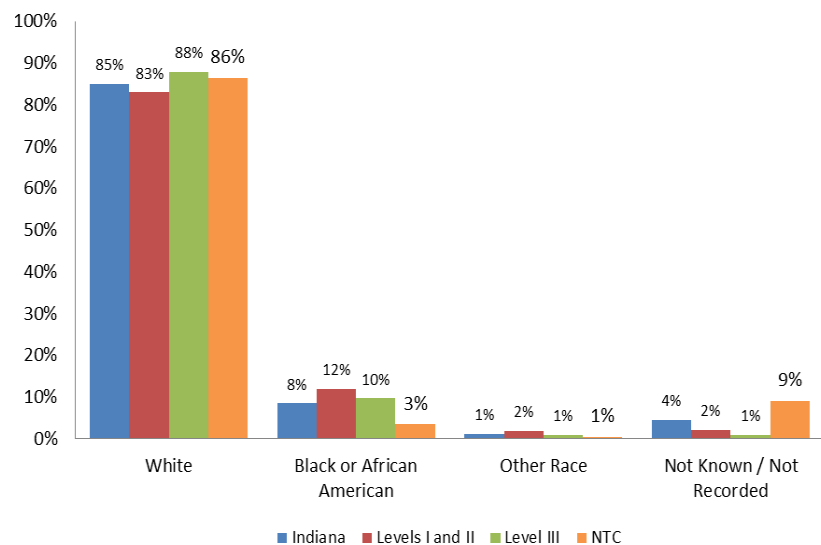
Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Patient Gender



Gender	Indiana	Level I and II	Level III	NTC
Male	4588	2363	778	1447
Female	4303	1770	718	1815
Unknown	25	0	0	25
Total	8916	4133	1496	3287

Patient Race



Race	Indiana	Level I and II	Level III	NTC
White	7583	3430	1314	2839
Black or African American	755	497	145	113
Other	108	78	13	17
Not Known/Not Recorded	400	86	15	299
American Indian or Alaska Native	6	3	0	3
Asian	59	36	8	15
Native Hawaiian or Pacific Islander	5	3	1	1
Total	8916	4133	1496	3287

<1% Race - Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native

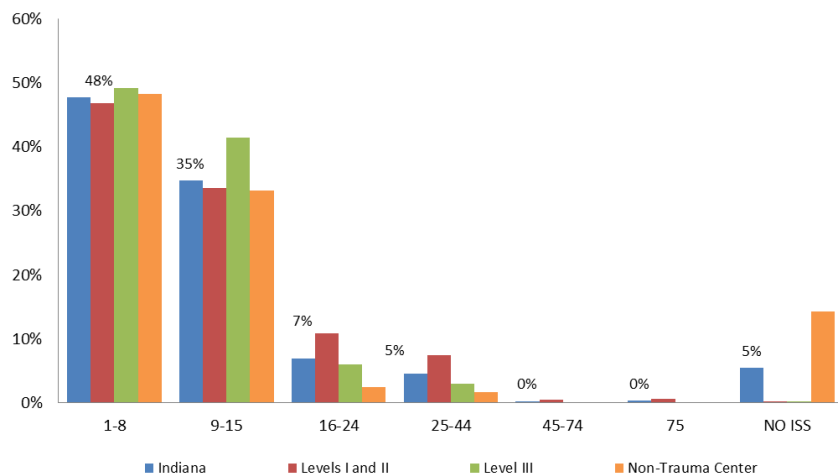
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

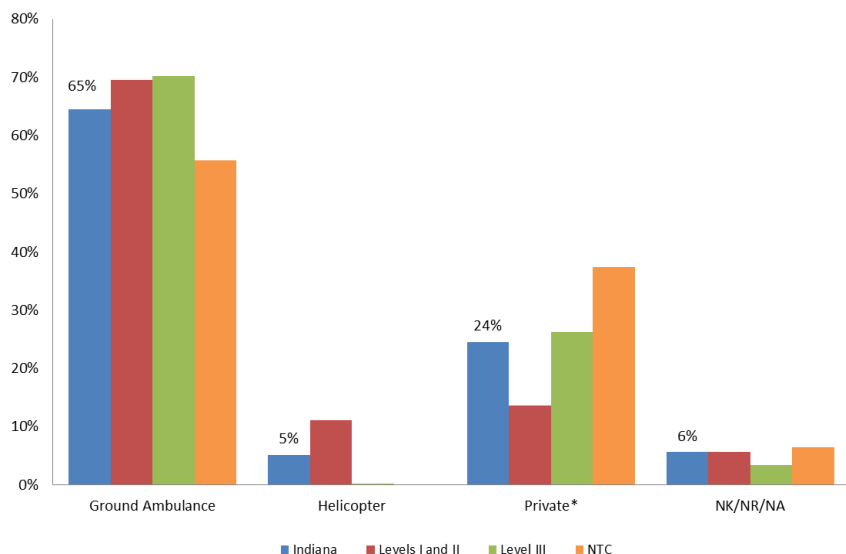
Injury Severity Score (ISS)



ISS Category	Indiana	Level I and II	Level III	NTC
1-8	4259	1934	736	1589
9-15	3099	1389	621	1089
16-24	618	448	90	80
25-44	407	306	45	56
45-74	23	22	0	1
75	27	25	1	1
No ISS	483	9	3	471
Total	8916	4133	1496	3287

There were 33 and 23 cases in the 45-74 and 75+ categories, respectively

Transport Mode



Transport Mode	Indiana	Level I and II	Level III	NTC
Ground Ambulance	5756	2875	1050	1831
Helicopter	460	456	3	1
Private	2184	561	392	1231
NK/NR/NA	499	235	50	214
Police	17	6	1	10
Other	0	0	0	0
Total	8916	4133	1496	3287

<1% Transport Mode: Police, Other

* Indicates Private/ Public Vehicle, Walk-in

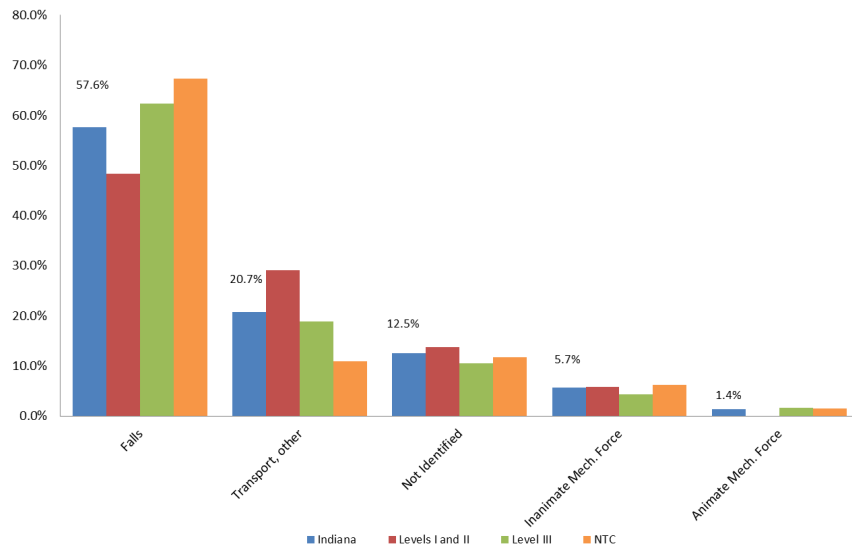
Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Cause of Injury



<1% Cause of Injury Categories: Smoke, Heat, Unspecified, Electricity/Radiation, Forces of Nature, Drowning, Breathing, Venom, Noxious Substances, Overexertion and Travel, and Poisoning

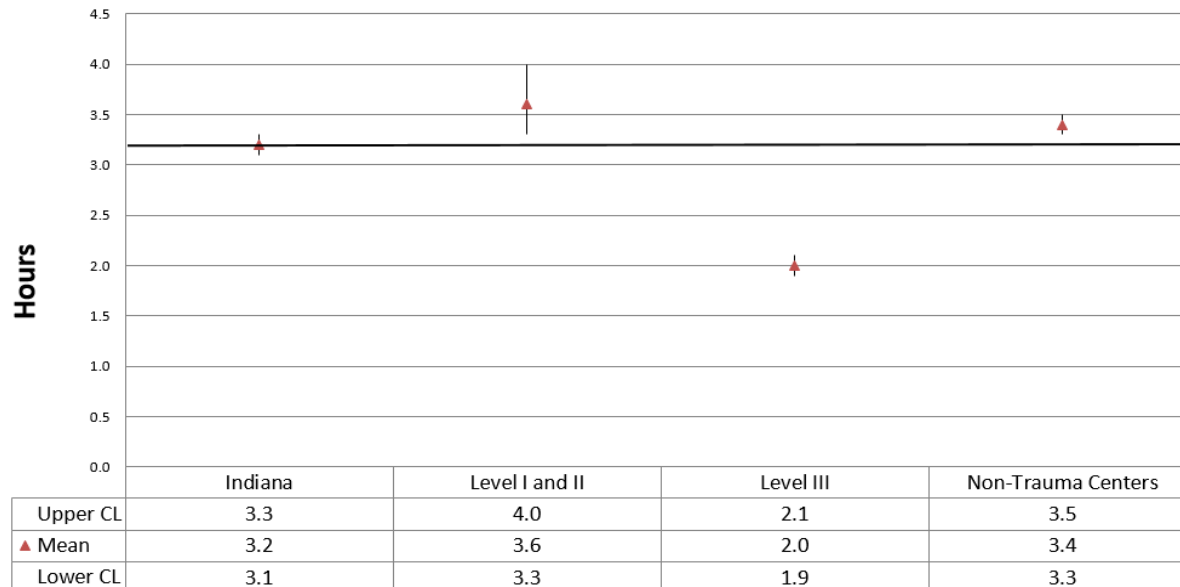
Cause of Injury	Indiana	Level I and II	Level III	NTC
Falls	5140	1997	932	2211
Not Identified	1112	570	158	384
Transport	1846	1202	283	361
Inanimate Mech. Force	509	241	64	204
Animate Mech. Force	125	54	24	47
Smoke	73	41	19	13
Heat	44	12	8	24
Unspecified	39	5	5	29
Electric/Radiation	10	4	1	5
Nature	3	3	0	0
Overexertion	15	4	2	9
Total	8916	4133	1496	3287

Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting
Level I and II: **8 facilities** **46.4% of data**
Level III: **9 facilities** **16.8% of data**
(Non-Trauma) Hospitals: **74 facilities** **36.9% of data**

All Patients Average ED LOS (Hours)



The purpose of the caterpillar graphs is to compare different groups to the average ED LOS. The Indiana mean is the comparison group, which is represented by the black line.

The ED LOS for these graphs was modeled using time-to-event analysis. The purposes of using this analysis were to account for censoring (death) and to see how variables influence ED LOS. The outcome variable was ED LOS and the independent variables were total GCS and age. If total GCS was missing but manual total GCS was recorded, then the manual total GCS was used. These two variables were used because they were the most similar to variables used in the published, peer-reviewed literature on ED LOS. Both were significant in the model. Increasing total GCS and age led to a slightly shorter ED LOS. Hospitals that did not have enough incidents with total GCS or age could not be modeled.

In the chart on the left, note the trauma center average is above the mean and the non-trauma center is below the mean. The mean, 95% confidence limit and lower confidence limit are listed for each group.

In the chart on the right, the data is for the trauma centers. The trauma center average is in the first column on the left side. The information for each trauma center has been assigned a random number for confidentiality. The mean, 95% confidence limit and lower confidence limit are listed for each group.

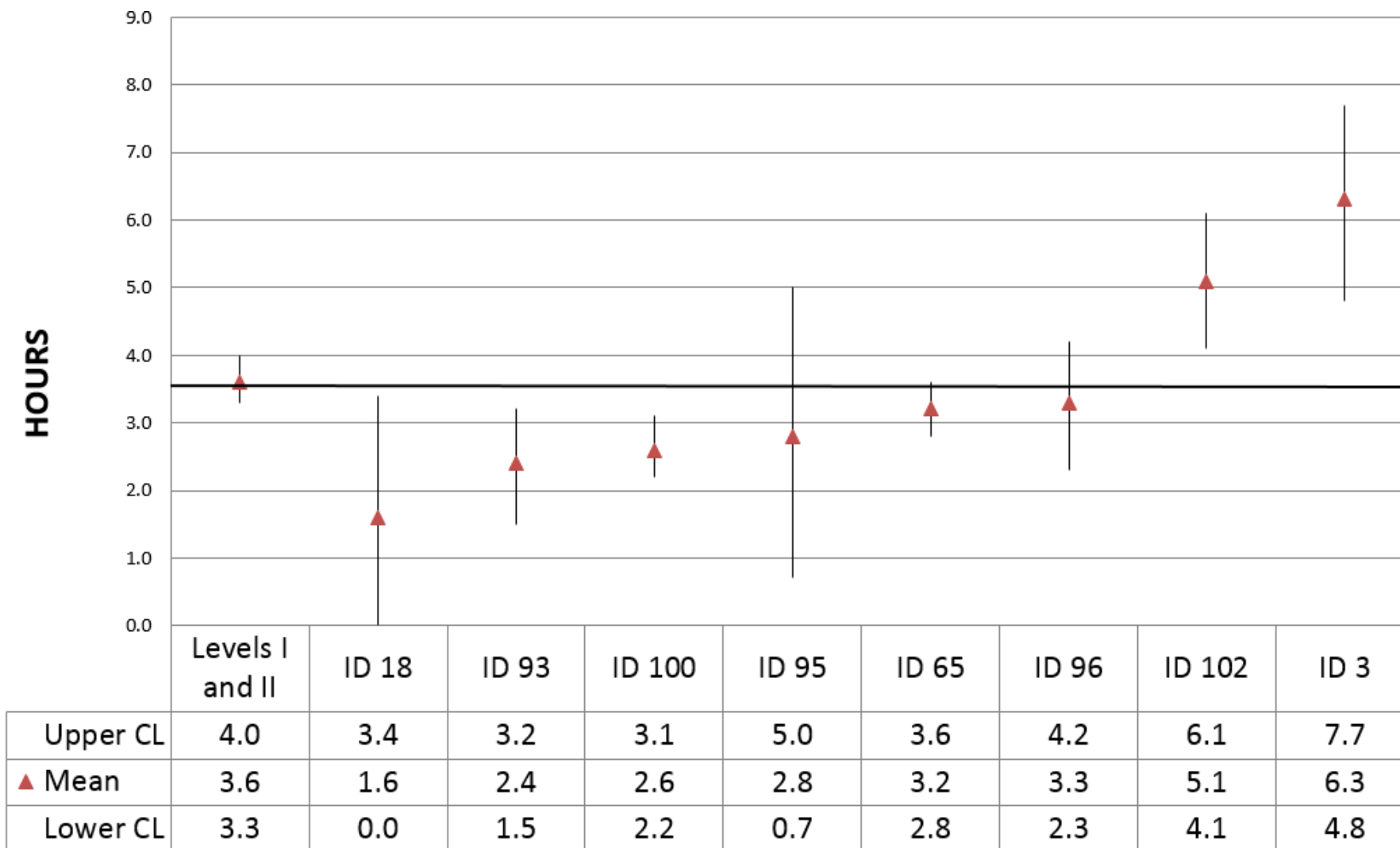
Indiana Trauma Registry

Statewide Quarter 4 Data Report
October 1, 2016—December 31, 2016
8,916 Incidents

91 Total Hospitals Reporting
 Level I and II: 8 facilities 46.4% of data
 Level III: 9 facilities 16.8% of data
 (Non-Trauma) Hospitals: 74 facilities 36.9% of data

All Patients

Level I and II Trauma Centers ED LOS (Hours)

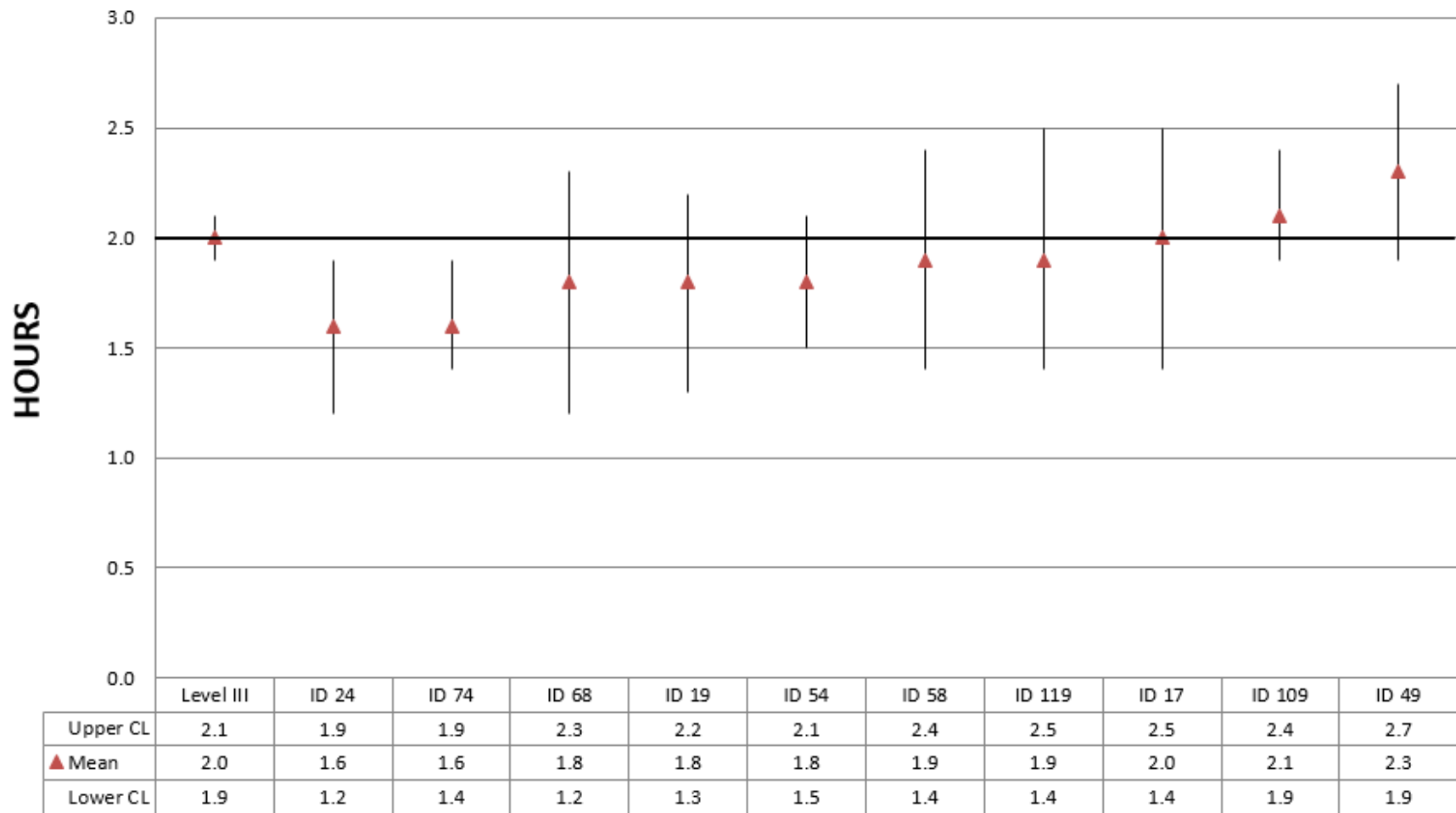


Indiana Trauma Registry

Statewide Quarter 4 Data Report
October 1, 2016—December 31, 2016
8,916 Incidents

91 Total Hospitals Reporting
 Level I and II: 8 facilities 46.4% of data
 Level III: 9 facilities 16.8% of data
 (Non-Trauma) Hospitals: 74 facilities 36.9% of data

All Patients Level III Trauma Centers ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

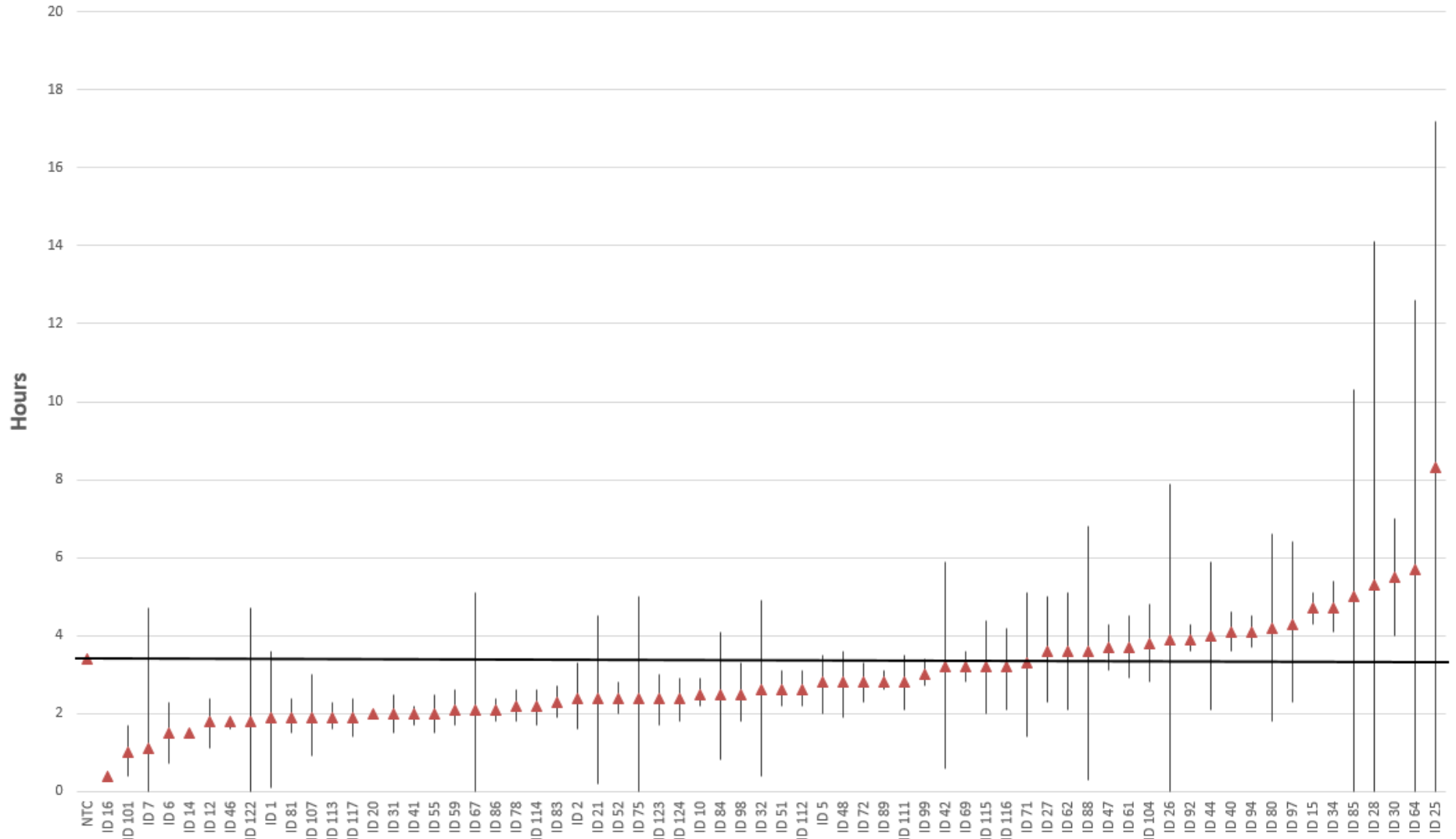
Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

All Patients

Non-trauma Centers ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

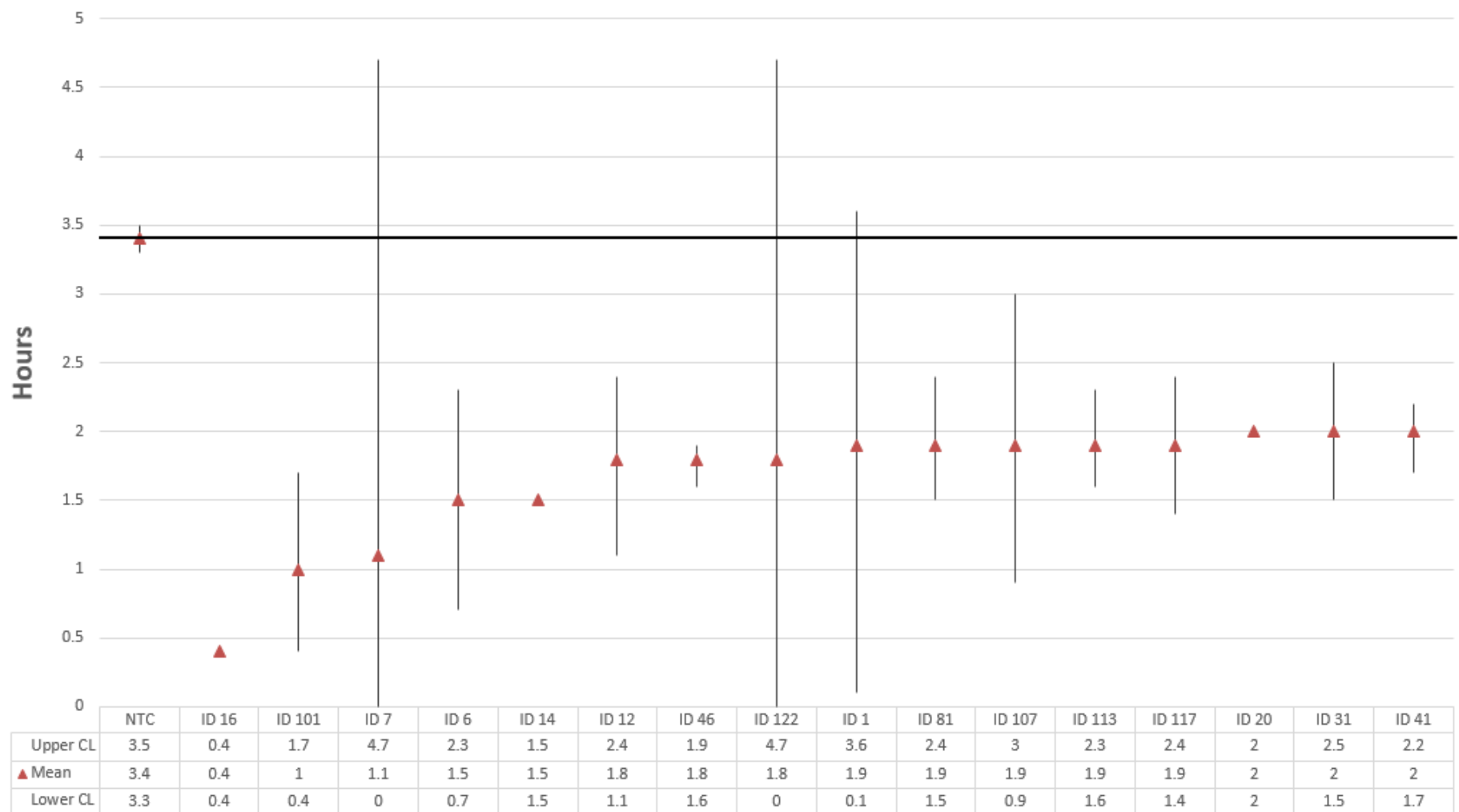
91 Total Hospitals Reporting

Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

All Patients Non-Trauma Centers- Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:

8 facilities

46.4% of data

Level III:

9 facilities

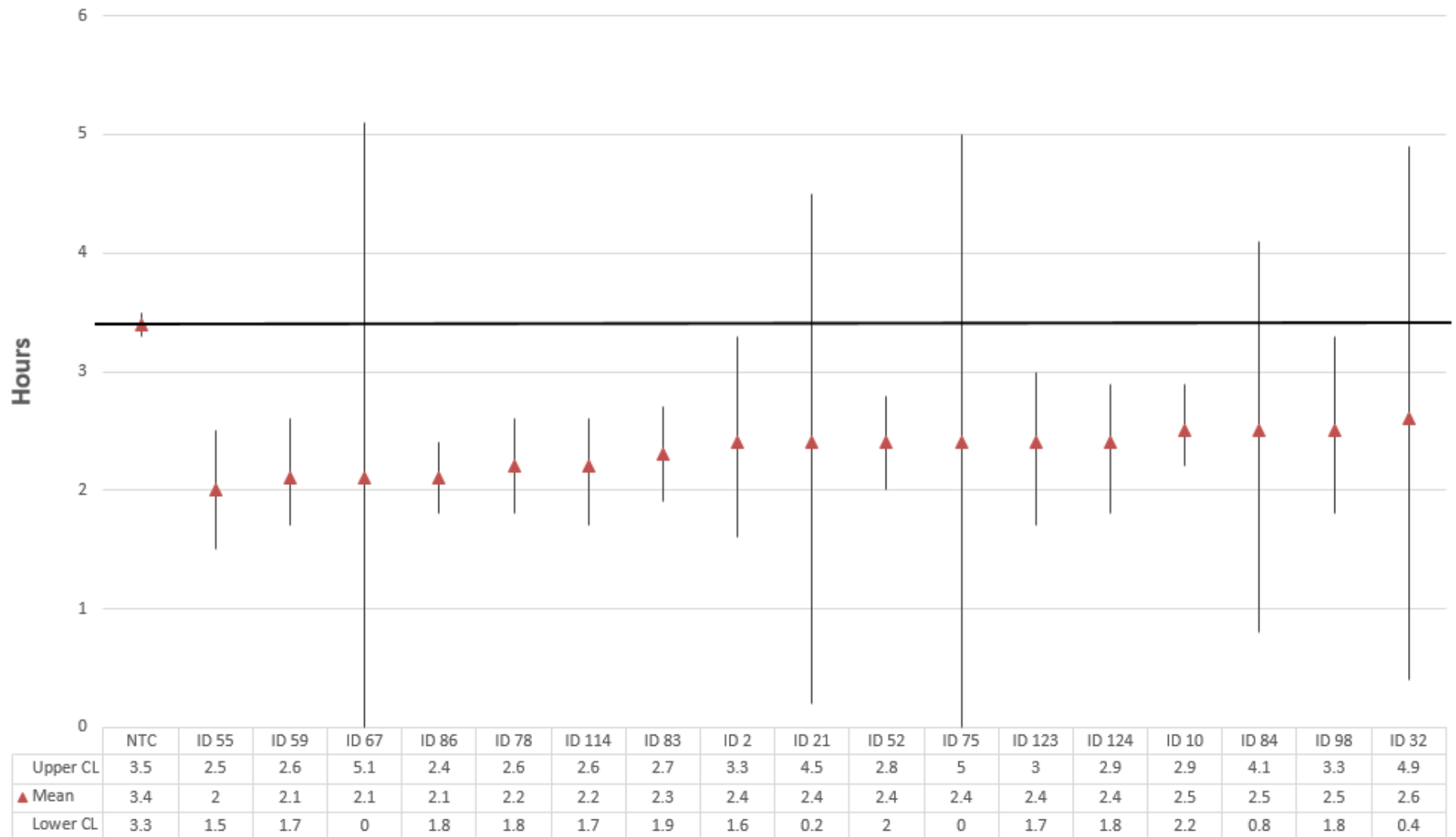
16.8% of data

(Non-Trauma) Hospitals:

74 facilities

36.9% of data

All Patients Non-Trauma Centers- Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:

8 facilities

46.4% of data

Level III:

9 facilities

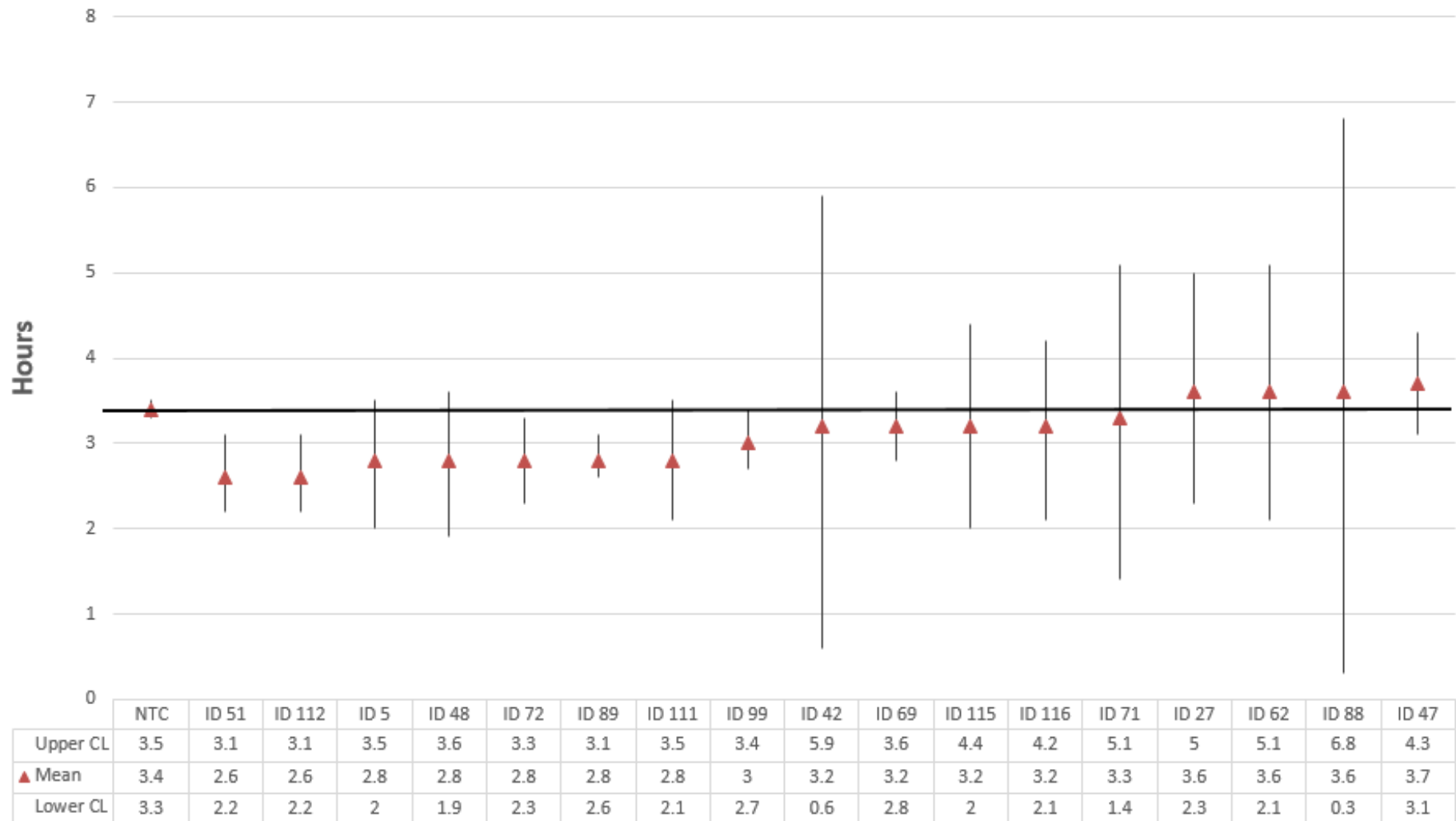
16.8% of data

(Non-Trauma) Hospitals:

74 facilities

36.9% of data

All Patients Non-Trauma Centers- Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:

8 facilities

46.4% of data

Level III:

9 facilities

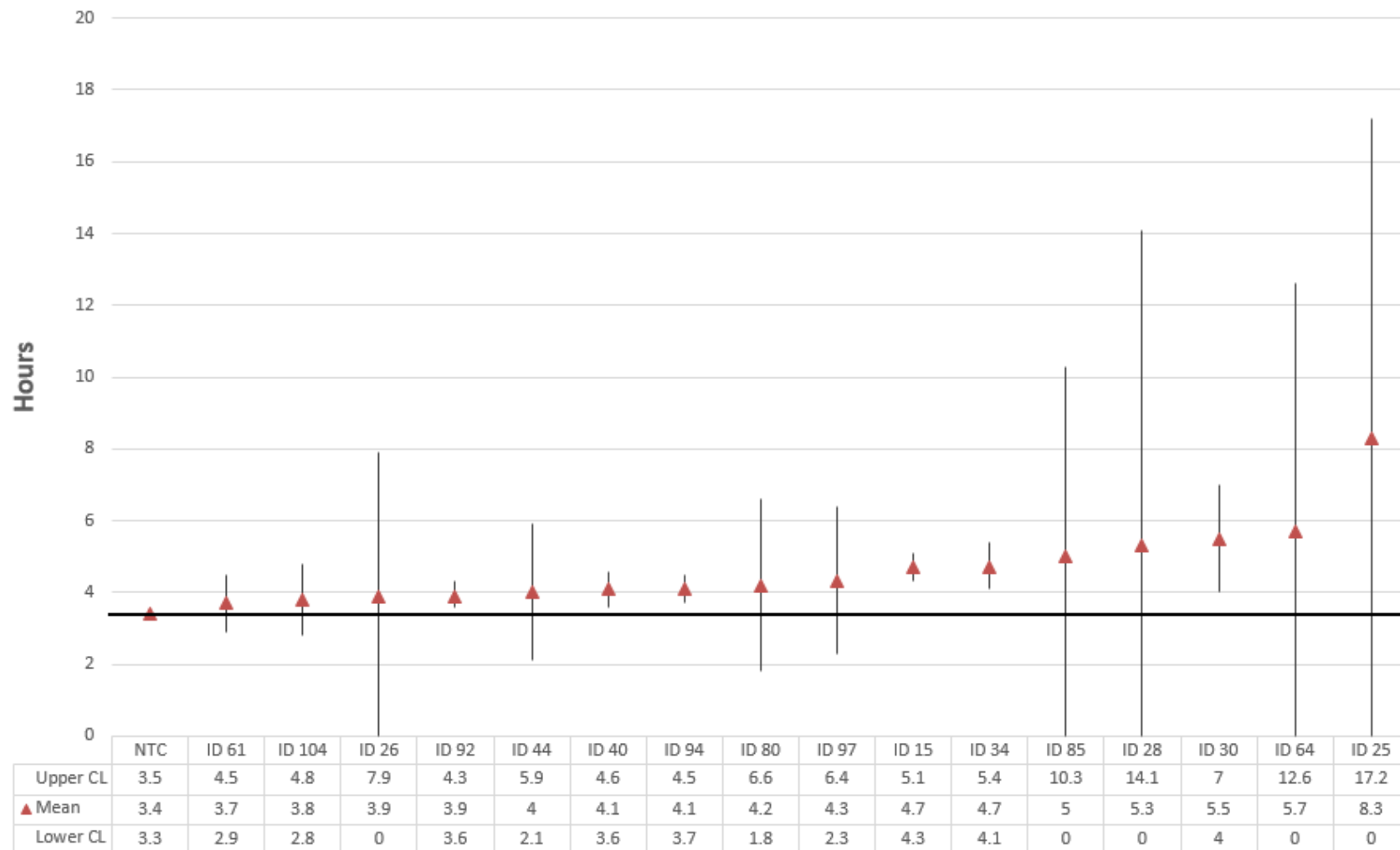
16.8% of data

(Non-Trauma) Hospitals:

74 facilities

36.9% of data

All Patients Non-Trauma Centers- Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

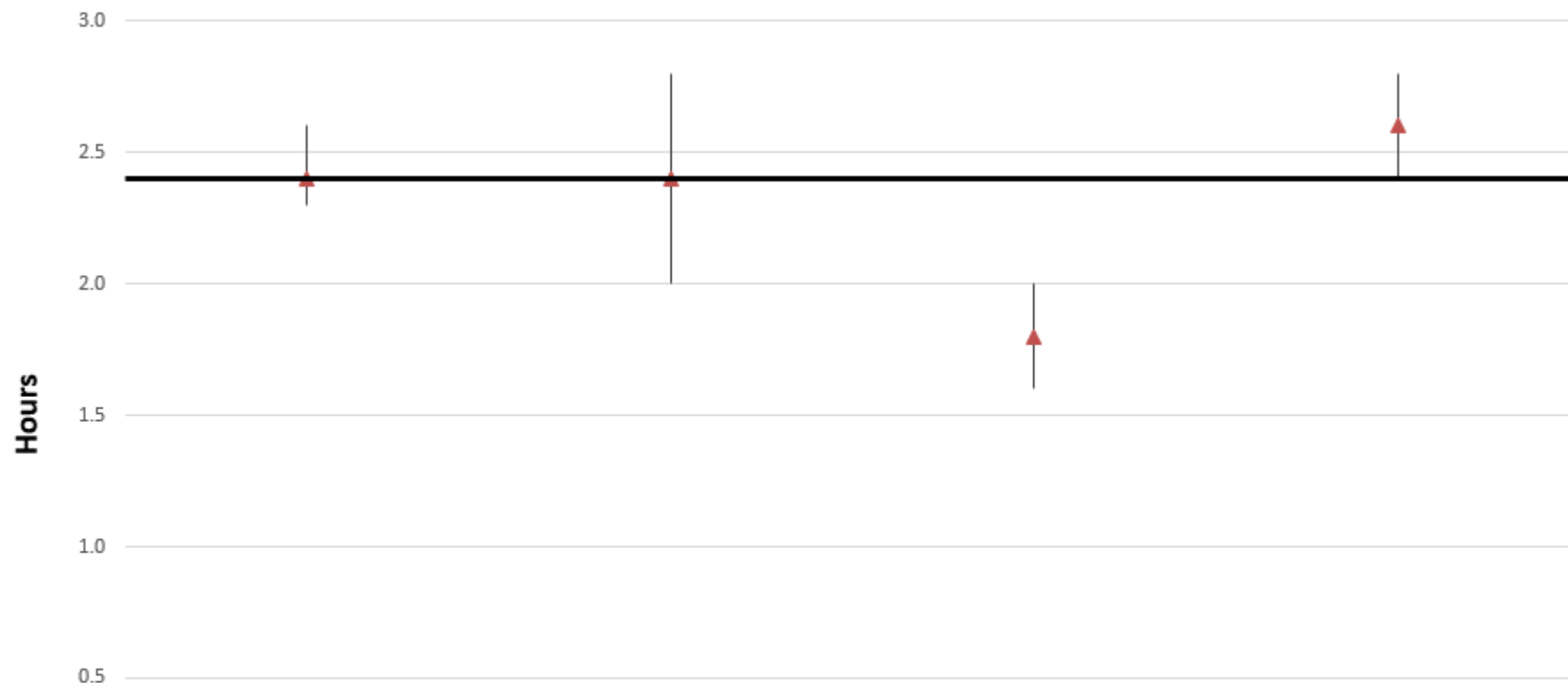
Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Disposition = Transferred

Average ED LOS (Hours)



	Indiana	Levels I and II	Level III	Non-Trauma Centers
Upper CL	2.6	2.8	2.0	2.8
▲ Mean	2.4	2.4	1.8	2.6
Lower CL	2.3	2.0	1.6	2.4

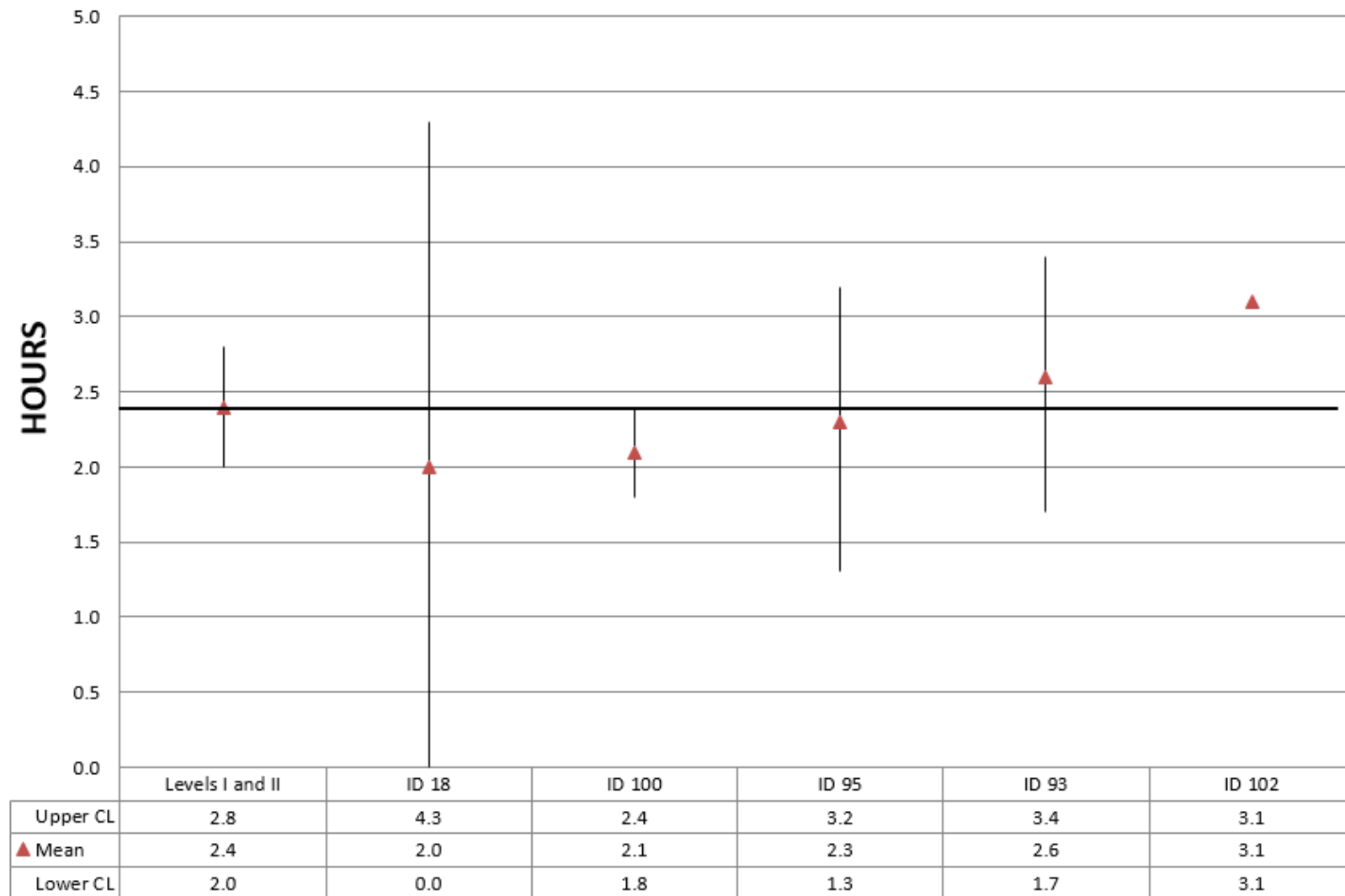
Indiana Trauma Registry

Statewide Quarter 4 Data Report
October 1, 2016—December 31, 2016
8,916 Incidents

91 Total Hospitals Reporting
 Level I and II: 8 facilities 46.4% of data
 Level III: 9 facilities 16.8% of data
 (Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Disposition = Transferred

Level I and II Trauma Centers- Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

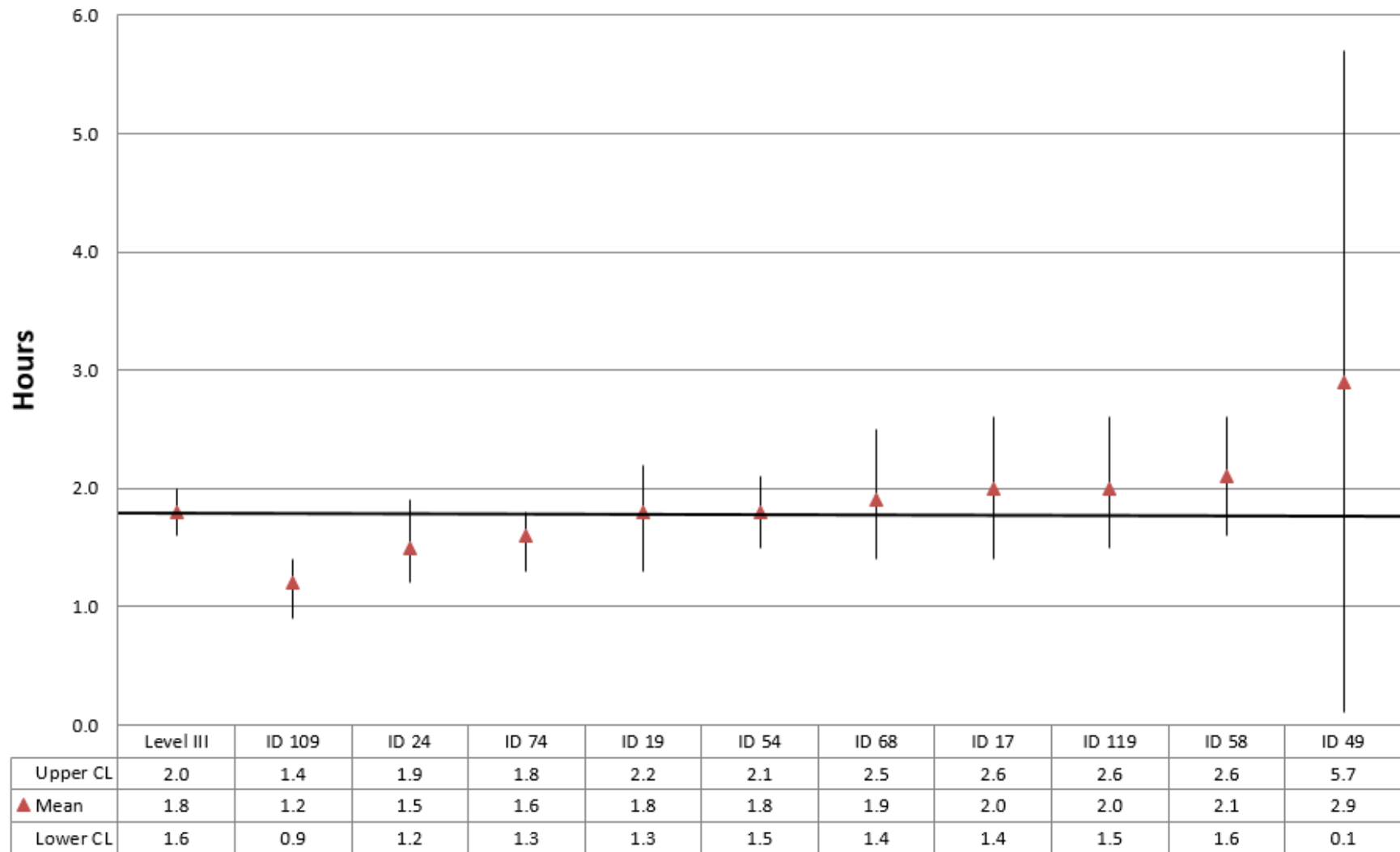
Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Disposition = Transferred

Level III Trauma Centers- Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

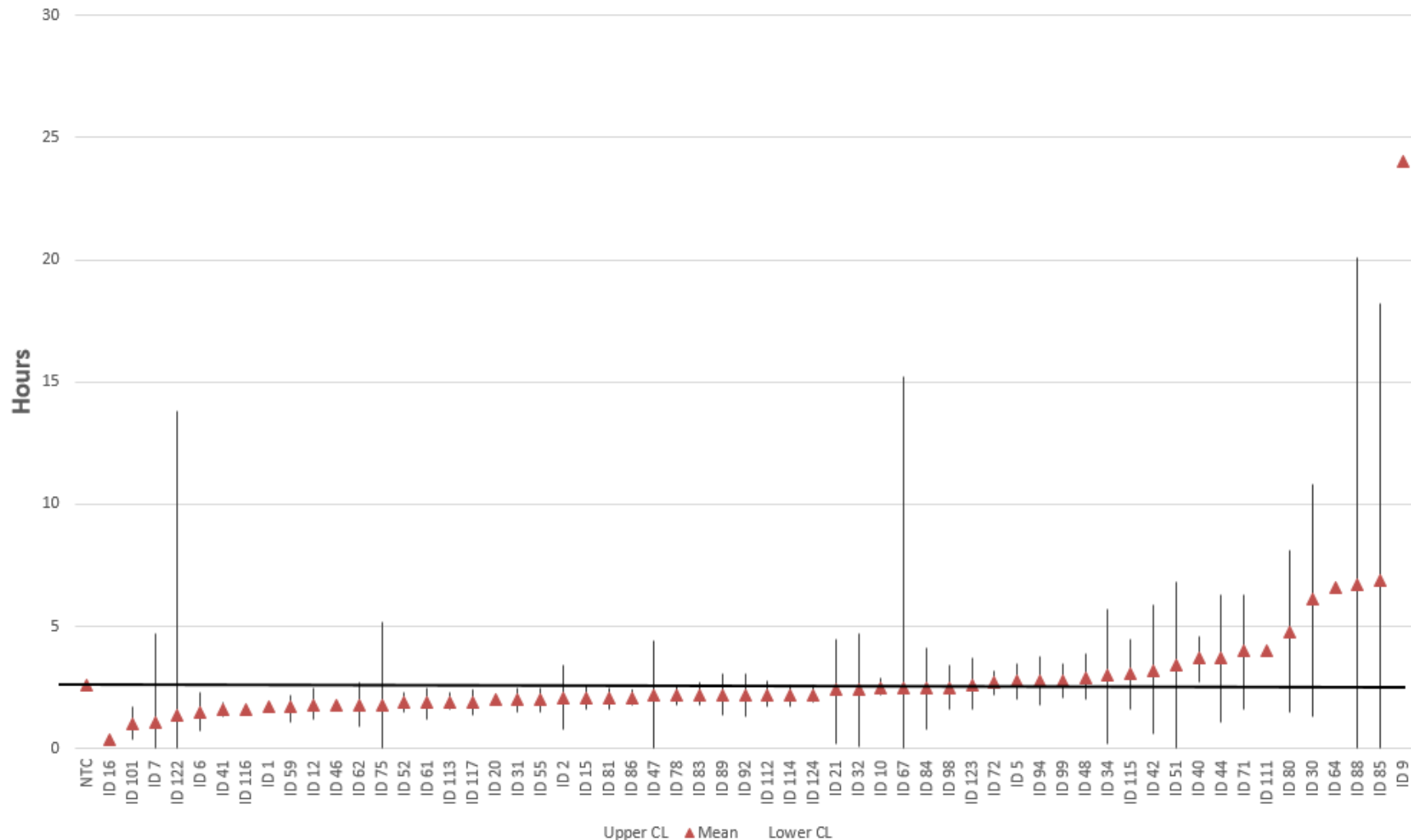
91 Total Hospitals Reporting

Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Disposition=Transferred Non-Trauma Centers Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

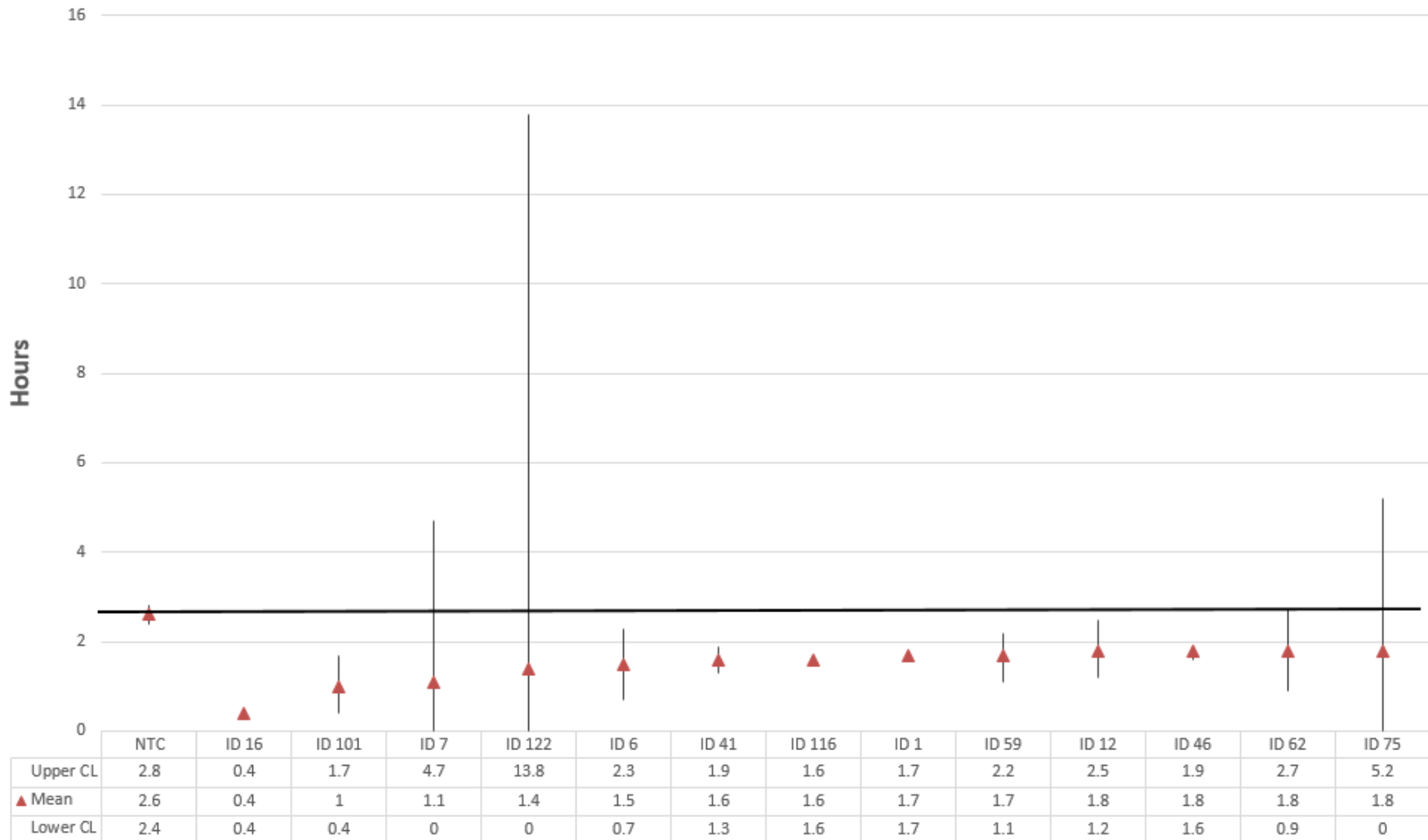
91 Total Hospitals Reporting

Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Disposition=Transferred Non-Trauma Centers Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:

8 facilities

46.4% of data

Level III:

9 facilities

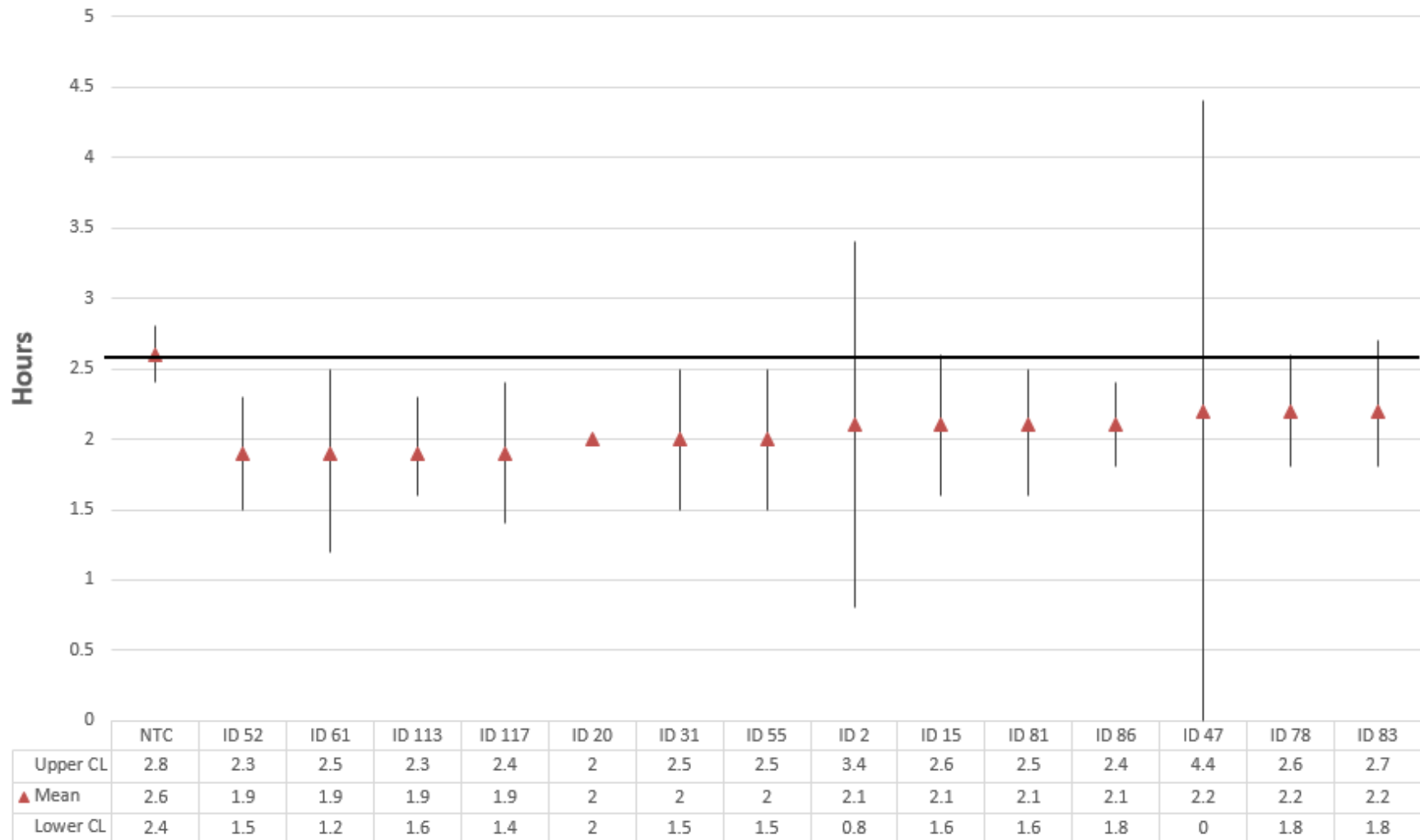
16.8% of data

(Non-Trauma) Hospitals:

74 facilities

36.9% of data

ED Disposition = Transferred Non-Trauma Centers Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

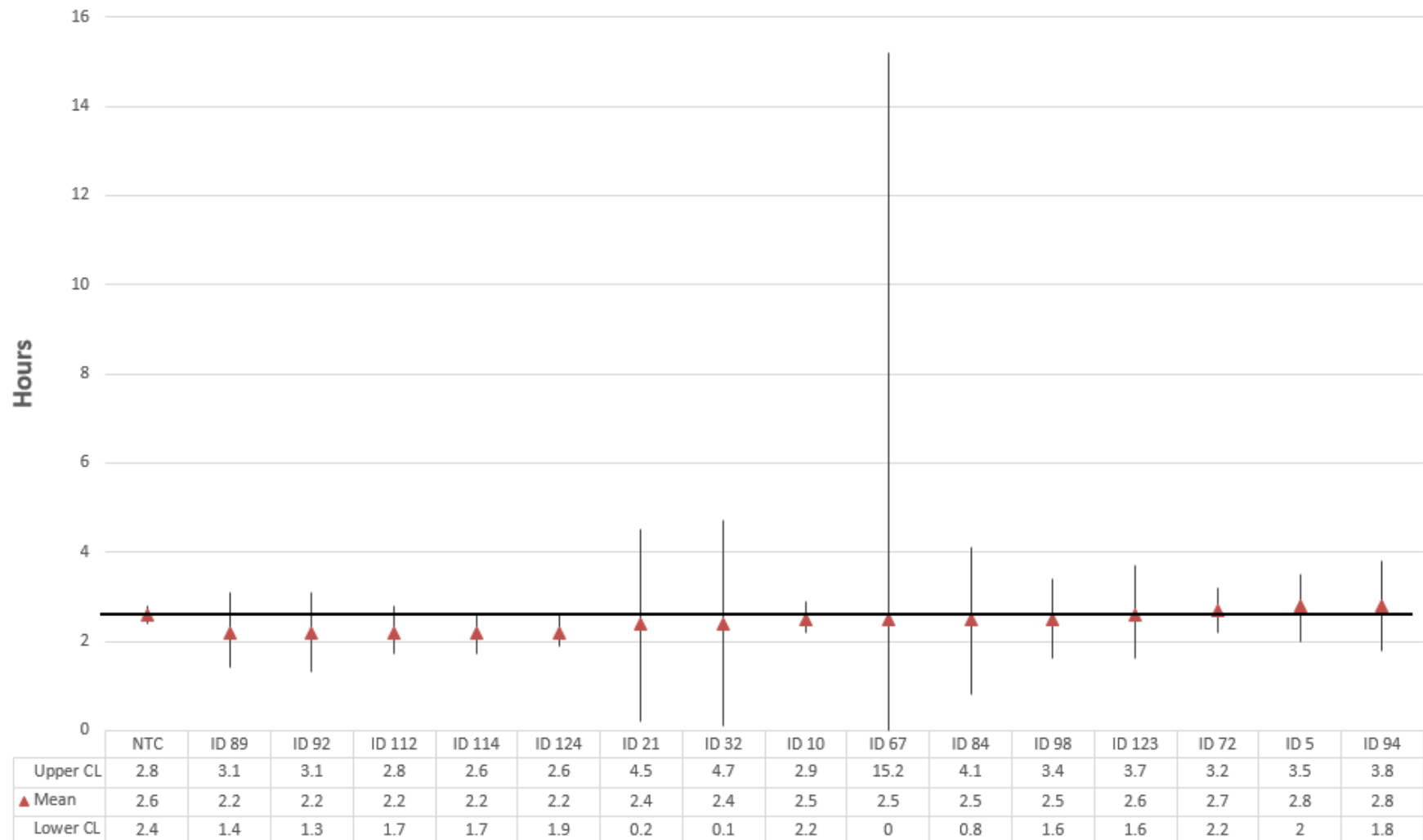
91 Total Hospitals Reporting

Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Disposition = Transferred Non-Trauma Centers Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:

8 facilities

46.4% of data

Level III:

9 facilities

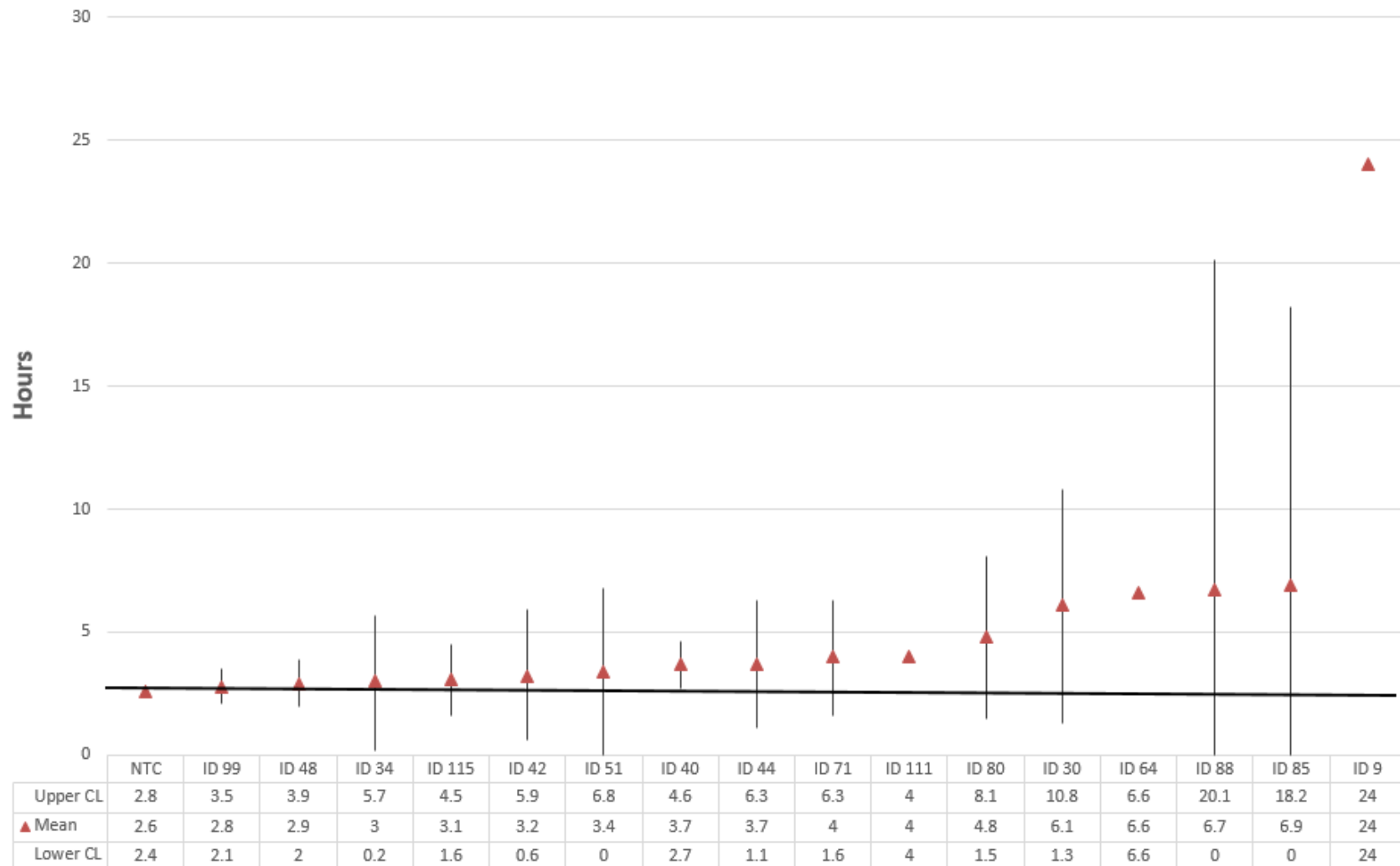
16.8% of data

(Non-Trauma) Hospitals:

74 facilities

36.9% of data

ED Disposition = Transferred Non-Trauma Centers Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

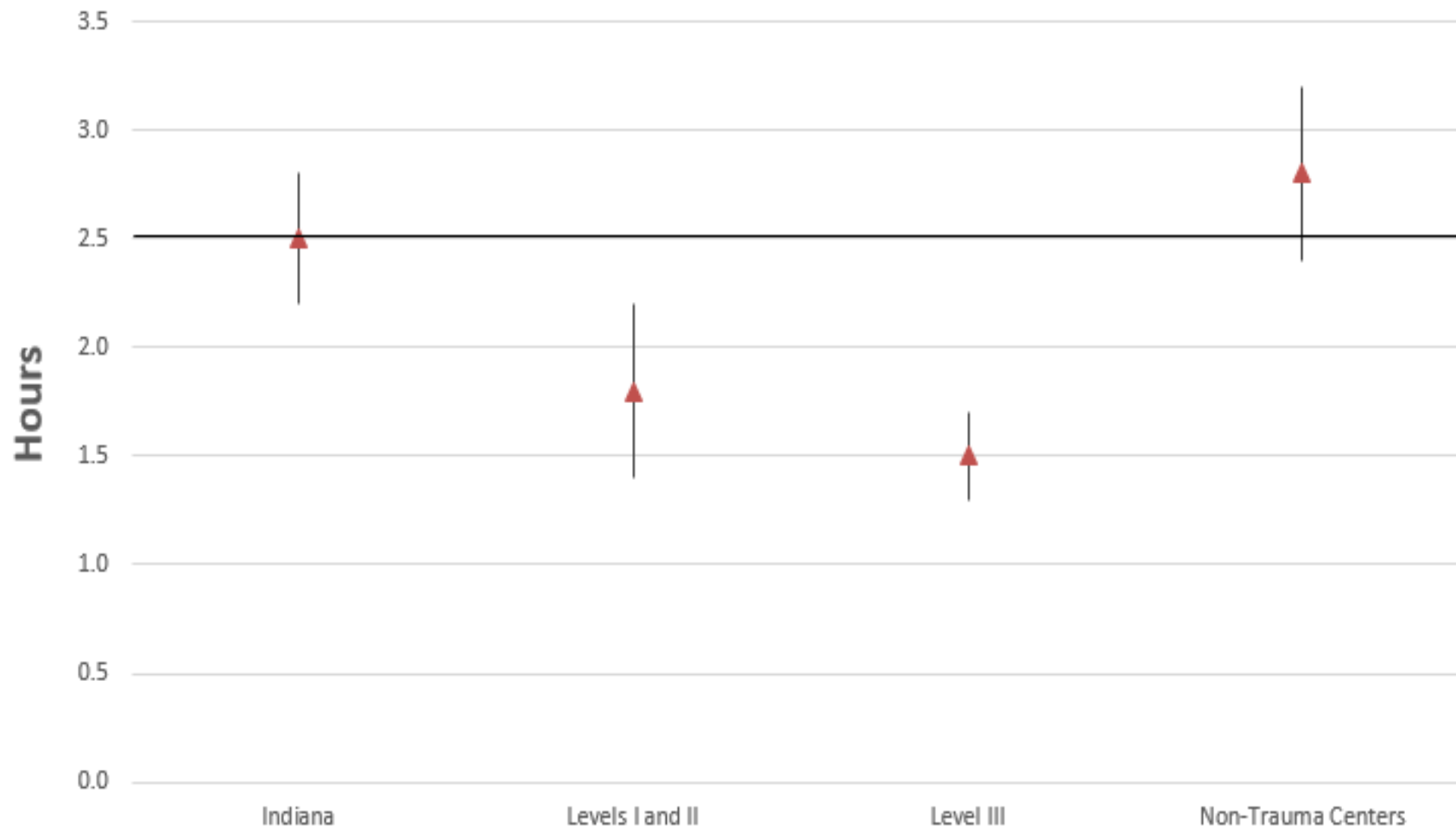
Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

Critical Patients, ED Disposition = Transferred

Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

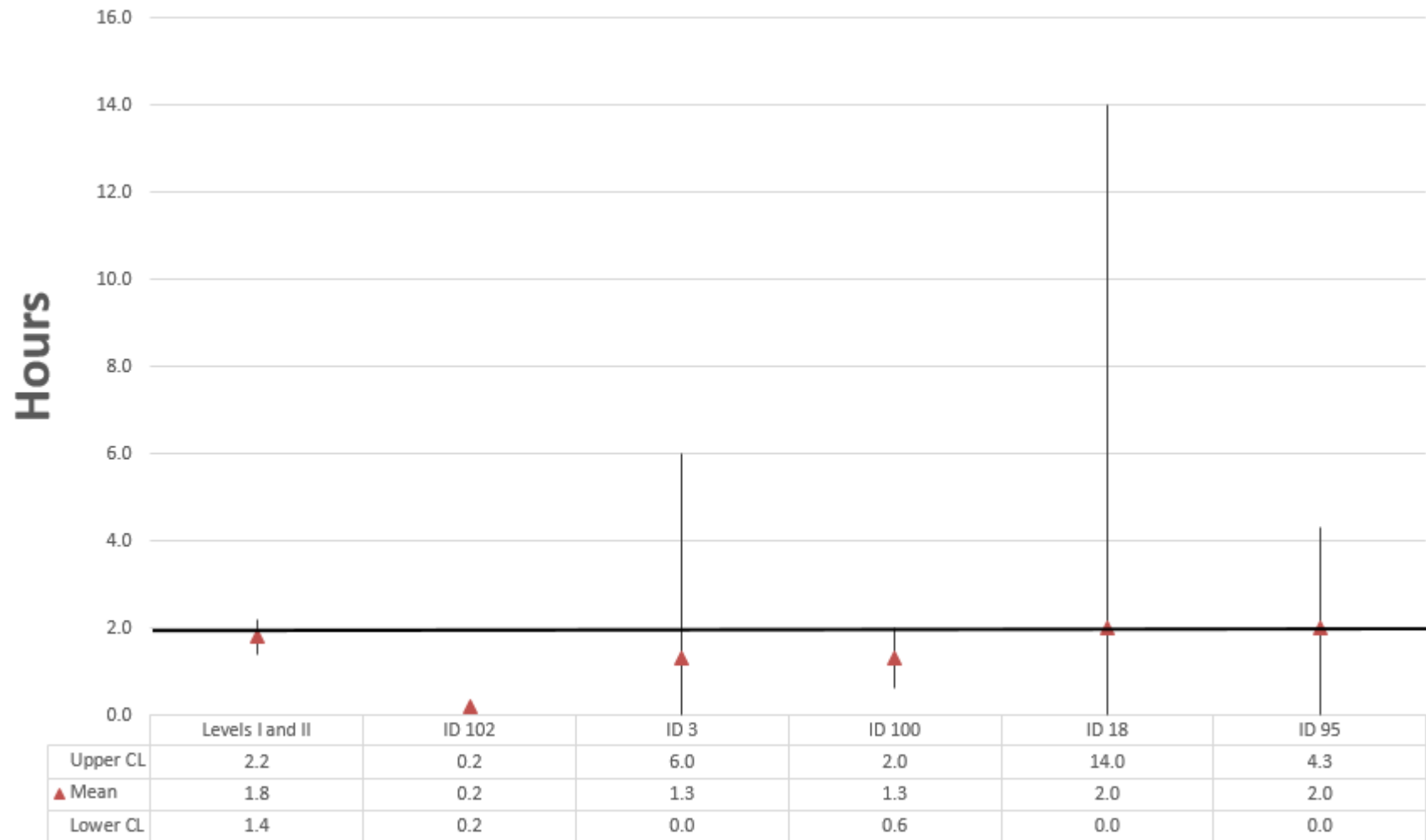
Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

Critical Patients, ED Disposition = Transferred

Level I and II Trauma Centers - Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

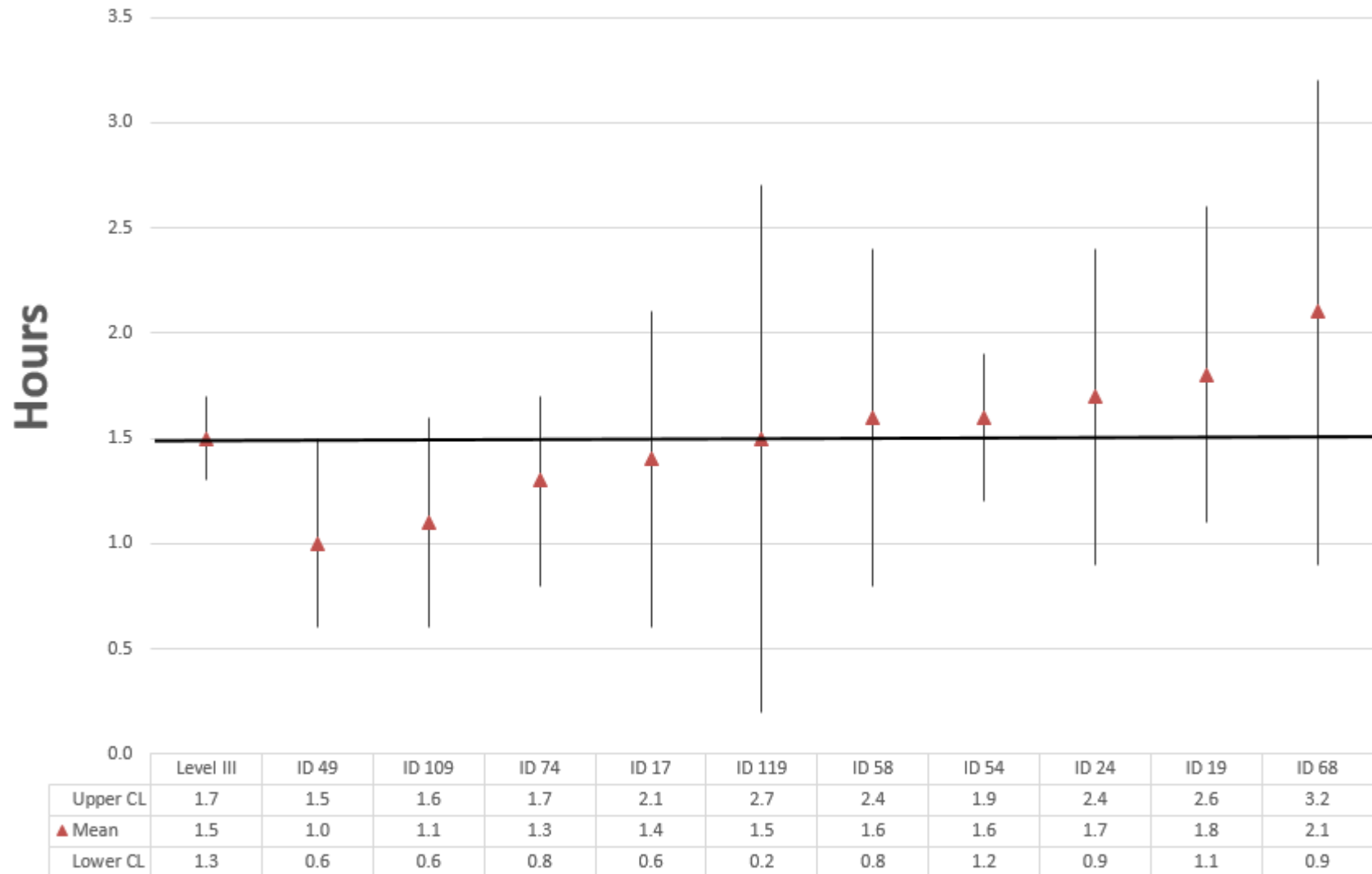
Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

Critical Patients, ED Disposition = Transferred

Level III Trauma Centers - Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

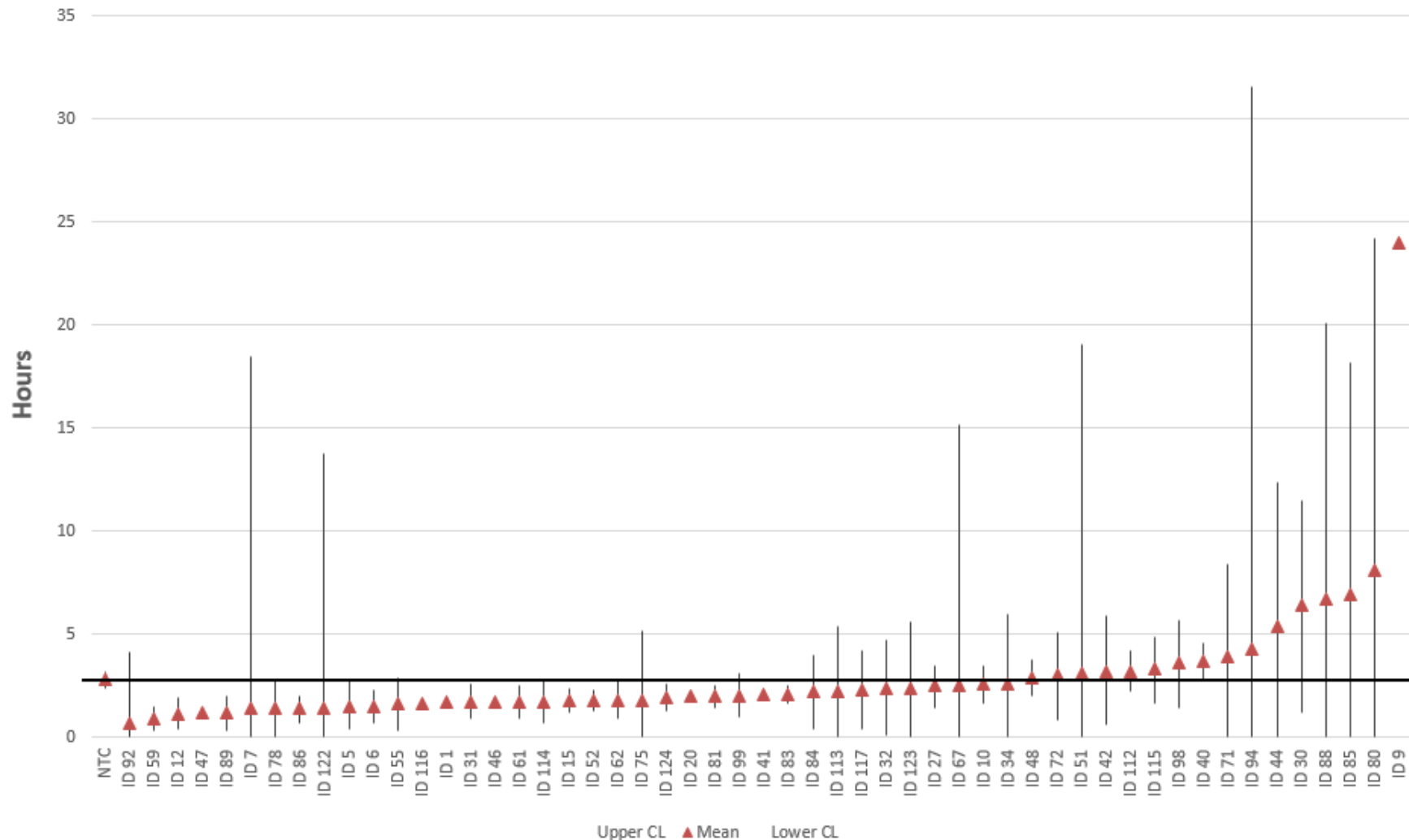
October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Critical Patients, ED Disposition = Transferred Non-Trauma Centers - Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

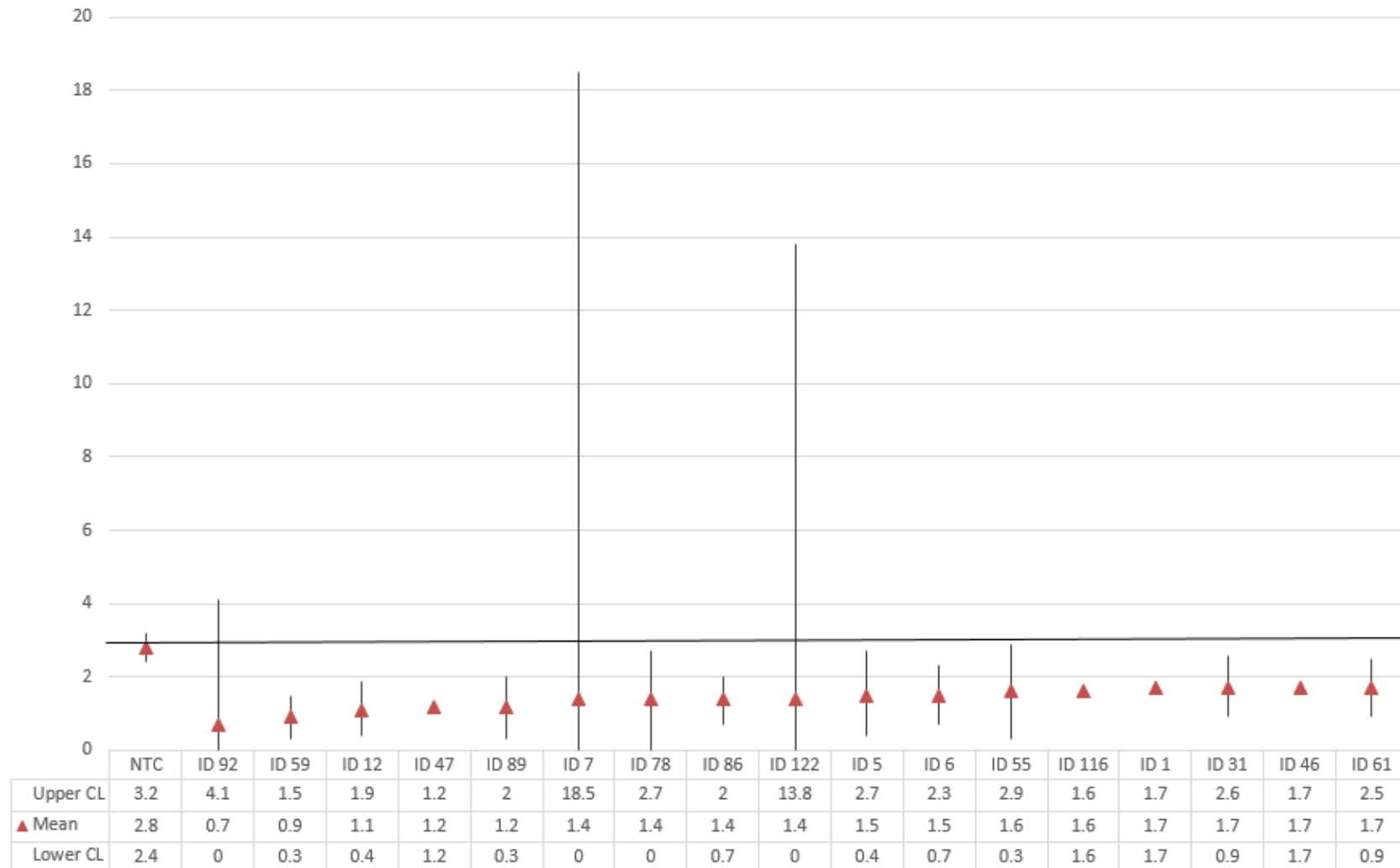
October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

Critical Patients, ED Disposition = Transferred Non-Trauma Centers - Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

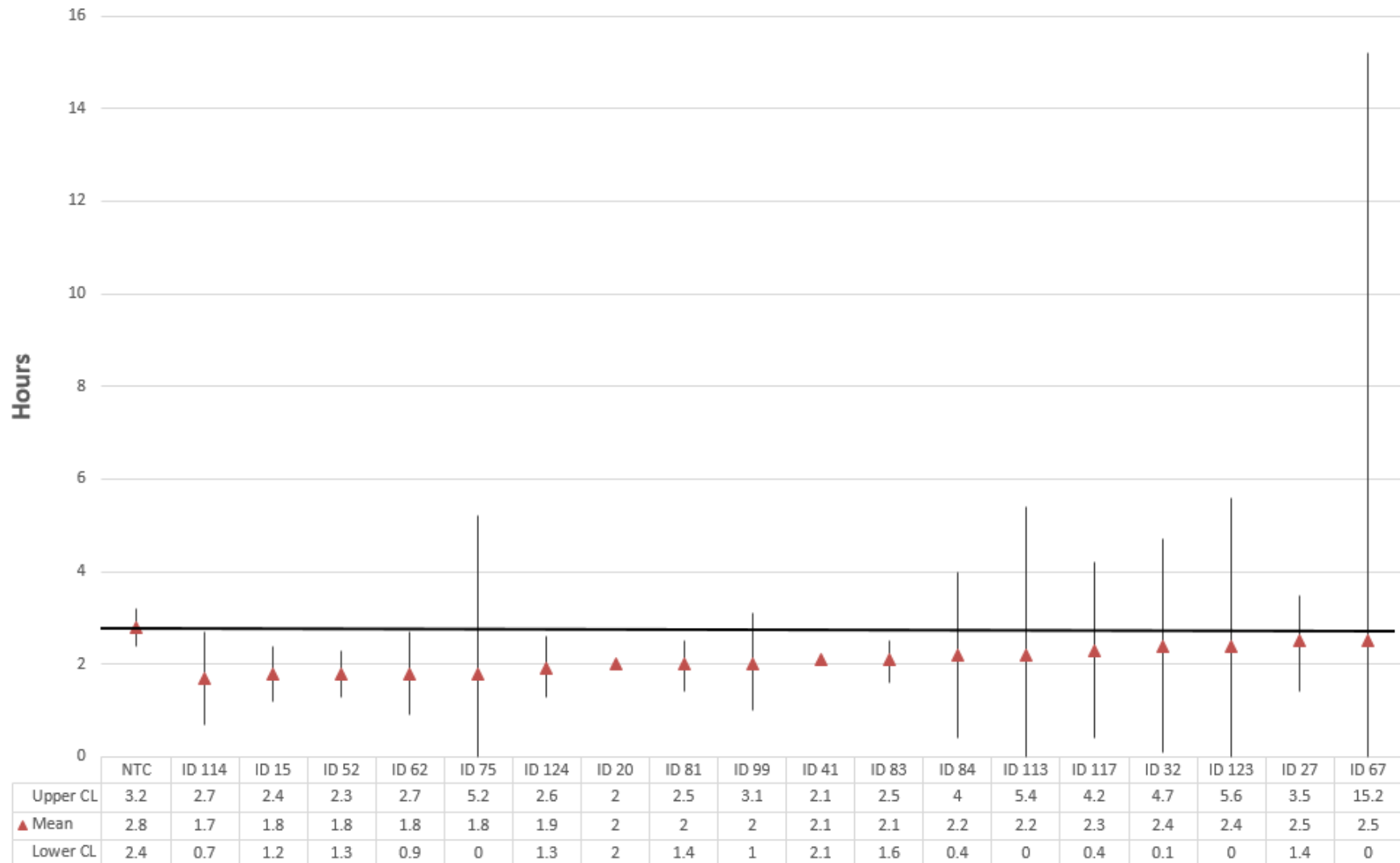
91 Total Hospitals Reporting

Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

Critical Patients, ED Disposition = Transferred Non-Trauma Centers - Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

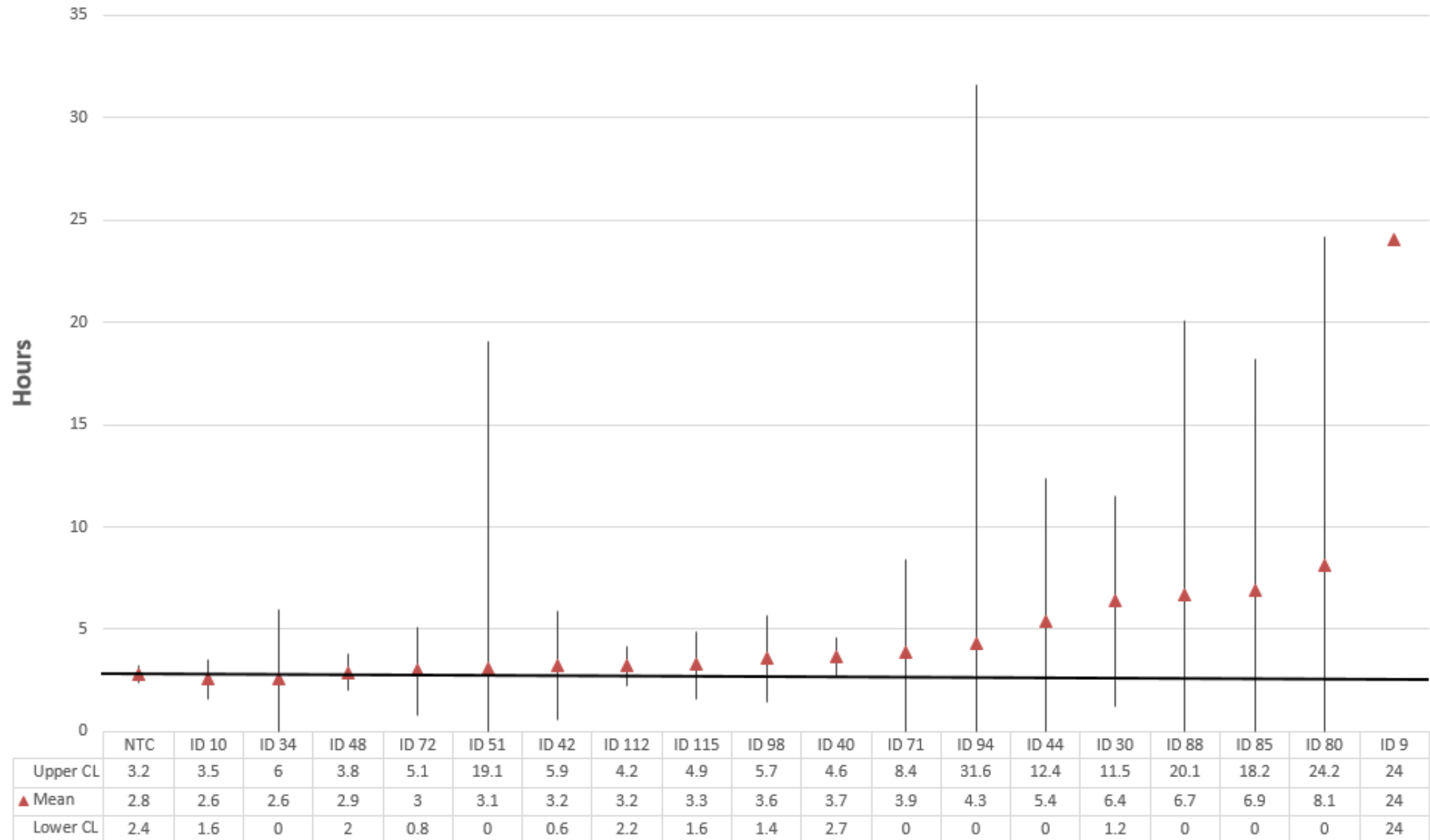
91 Total Hospitals Reporting

Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

Critical Patients, ED Disposition = Transferred Non-Trauma Centers - Average ED LOS (Hours)



Indiana Trauma Registry

Statewide Quarter 4 Data Report

October 1, 2016—December 31, 2016

8,916 Incidents

91 Total Hospitals Reporting

Level I and II: 8 facilities 46.4% of data

Level III: 9 facilities 16.8% of data

(Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Length of Stay

ED Length of Stay (minutes)				
	Indiana Average	Level I and II	Level III	NTC
N=	3066	344	486	2236
Average	189	185	120	205
Std. Deviation	186	157	87	201
Minimum	0	1	0	0
Quartile 1	95	93	63	105
Median	150	145	105	162
Quartile 3	236	238	155	250
Maximum	2062	1002	952	2062

ED Disposition

ED Disposition (count)				
	Indiana	Level I and II	Level III	NTC
Floor Bed	3870	1664	682	1524
ICU	1034	851	102	81
Transferred	1484	94	292	1098
OR	650	473	105	72
Home w/o Services	442	327	74	41
Observation	457	276	40	141
Step-Down	452	172	96	184
Expired	69	43	12	14
NK/NR/NA	423	216	87	120
AMA	9	9	0	0
Home w/ Services	4	1	0	3
Other	22	7	6	9
Grand total	8916	4133	1496	3287

*A bar graph of ED Disposition is found on page 2.

*A bar graph of ED Length of Stay is found on page 2.

Indiana Trauma Registry

Statewide Quarter 4 Data Report
October 1, 2016—December 31, 2016
8,916 Incidents

91 Total Hospitals Reporting
 Level I and II: 8 facilities 46.4% of data
 Level III: 9 facilities 16.8% of data
 (Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Length of Stay by ISS

ED Length of Stay (minutes)								
ISS Category	Indiana Average	Indiana Average	Level I and II	Level I and II	Level III	Level III	Non-Trauma Centers	Non-Trauma Centers
	Counts	Minutes	Counts	Minutes	Counts	Minutes	Counts	Minutes
1-8	1721	199	291	197	258	124	1172	216
9-15	1016	183	69	191	170	127	777	194
16-24	128	130	11	95	50	105	67	152
25-44	88	130	20	79	25	70	42	183
45-74	2	138	1	-	0	-	1	138
75	10	41	8	42	1	2	1	70
No ISS	231	212	3	250	3	53	225	213

*A Box and Whisker plot of ED Length of Stay by ISS is found on page 5.

Indiana Trauma Registry

Statewide Quarter 4 Data Report
October 1, 2016—December 31, 2016
8,916 Incidents

91 Total Hospitals Reporting
 Level I and II: 8 facilities 46.4% of data
 Level III: 9 facilities 16.8% of data
 (Non-Trauma) Hospitals: 74 facilities 36.9% of data

ED Disposition (count) by ISS Category

	Floor Bed	ICU	Transferred	OR	Observation	NK/NR/NA	Step-Down	Home w/o Services	Expired	Other	AMA	Home w/ Services	Total
1-8	1847	243	750	293	326	175	209	380	11	13	8	4	4259
9-15	1642	313	434	199	101	195	165	33	14	2	1	0	3099
16-24	123	249	100	63	17	14	42	3	7	0	0	0	618
25-44	28	197	45	80	1	12	15	2	24	3	0	0	407
45-74	0	12	2	7	0	2	0	0	0	0	0	0	23
75	0	14	1	2	0	0	0	0	10	0	0	0	27
NO ISS	230	6	152	6	12	25	21	24	3	4	0	0	483
Total	3870	1034	1484	650	457	423	452	442	69	22	9	4	8916

*Bar graph of ED Disposition by ISS is found on page 22.

Indiana Trauma Registry

Statewide Quarter 4 Data Report October 1, 2016—December 31, 2016 8,916 Incidents

91 Total Hospitals Reporting

Level I and II:	8 facilities	46.4% of data
Level III:	9 facilities	16.8% of data
(Non-Trauma) Hospitals:	74 facilities	36.9% of data

General Report:

- The caterpillar plots with the anonymous ID's for all patients per hospital may be found on pages 30-36.
- The caterpillar plots with the anonymous ID's for transferred patients per hospital may be found on pages 37-44.
- The caterpillar plots with the anonymous ID's for critical transferred patients per hospital may be found on pages 45-51.
- Reference tables now accompany the graphs for demographic data on pages 25-28 and 52-54.